

Courtesy translation

**Principles and criteria for determination of charges
for access and use of the railway infrastructure**

REGULATORY MEASURES

SUMMARY

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FOREWORD

The present regulatory measures, adopted by the Authority with Decision No. 96 of 13 November 2015, are drafted on the basis of the Preliminary Report (Annex 1).

TITLE I. GENERAL PRINCIPLES

Chapter I. Principles and criteria for charging

Measure 1 Regulatory scope

Pursuant to the powers conferred upon the Authority under article 37, paragraph 2 (b) and c) and paragraph 3 (b) of Decree-Law No 201/2011 and in accordance with Legislative Decree No 112/2015, the regulatory measures are aimed at establishing principles and criteria concerning the economic supply conditions, including regulatory accounting obligations, for:

- a) access charge for the use of the national rail infrastructure (the so-called "Minimum Access Package" (MAP) services)
- b) charges and payments for services relating to the national rail infrastructure, not included in MAP charges, if subject to regulation, pursuant to the provisions of Legislative Decree No 112/2015.

Measure 2 Regulatory Model

Without prejudice to the specific measures set out in Title II and Title III, the criteria for the determination of charges for access and use of the railway infrastructure, as well as charges and payments for services referred to in Measure 1 (a) and (b), are based on a "regulatory model" characterized by:

- a) Definition, upon full implementation, of a five-year regulatory period, except as otherwise provided for;
- b) identification, and related evaluation of the perimeter of the relevant costs by the Infrastructure Manager (IM) or by the operator of the service facility;
- c) definition of efficiency targets for operating costs;
- d) identification of the most relevant segments of supply and demand, on the basis of the existing situation and the developments which can be presently estimated;
- e) definition of the procedures for the determination of charges by the IM or the operator of the service facility, starting from specified costs;
- f) establishment of verification procedures by the Authority to check the correct application of the criteria for setting charges.

Measure 3 Regulatory period

In accordance with the regulatory model indicated by the Authority, the determination (i) of charges for the Minimum Access Package (and for access to the infrastructure connecting service facilities) by the IM, pursuant to article 17, paragraph 2, of Legislative Decree No 112/2015, (ii) of charges for services other than the Minimum Access Package (as further defined in Measure 38), by the operator of the service facility under Type A, pursuant to article 17, paragraphs 10 and 11 of Legislative Decree No 112/2015:

- a) shall be related to the relevant and efficient costs during the regulatory period under consideration, in

compliance with the criteria set by the Authority;

- b) shall be carried out starting from the costs relating to the so-called **Base Year**, that is the accounting year for which approved financial statements are available, drafted according to statutory requirements and certified by an external audit firm, on the basis of which the IM or (where requested) the operator of the service facility has consistently drafted audited regulatory accounts in compliance with the criteria set by the Authority;
- c) shall take place during the so-called **Bridge Year**, that is the year between the base year and the first year of the regulatory period, during which the IM or operator of the service facility fulfils the requirements concerning the preparation and, as for the IM, the submission to the Authority of the documents concerning the determination of the above charges, as well as their publication in the Network Statement.

TITLE II. ECONOMIC REGULATION – MINIMUM ACCESS PACKAGE (MAP)

Chapter II. General aspects of MAP regulation

Measure 4 Procedure for verification of compliance of charges with the principles and criteria set by the Authority

With due regard to the independence of the IM, and with reference to the determination of charges for access and use of the railway infrastructure, the Authority provides for the adoption of a special **procedure for verification of compliance** of the **new charging scheme** defined by the IM in accordance with the Authority's principles and criteria, pursuant to the functions conferred upon the Authority by article 37, paragraph 2 (b) and (c) and paragraph 3 (b) of Decree-Law No 201/2011 and in accordance with Legislative Decree No 112/2015.

Upon full implementation, this procedure provides for the following definitions and the following steps for preparation, verification and entry into force of the new charging scheme:

- 1) **Definitions:** taking as reference the so-called "bridge" year (t_0), in which the new charge is established by the IM, the following relevant periods have been identified:
 - i. **base year** (T_{-1}): the IM's balance sheet data of this year are taken as a reference for the building up of the regulatory accounts to be used for establishing the new charge for each year of the five-year Regulatory Period, in accordance with the criteria set by the Authority;
 - ii. **bridge year** (T_0) in which the new charges are: i) established by the Infrastructure Manager in accordance with the criteria set by the Authority; ii) verified by the Authority itself and iii) published in the Network Statement with respect to the first year of the five-year regulatory period (T_1), as well as for the remaining years;
 - iii. **first year of the five-year regulatory period** (T_1), in which the new charges are formally already in force, but are not applied for the charging of the train paths included in the timetable which entered into force in mid-December of the previous year (T_0): to such paths, the charges in force in year (T_0), increased by the planned inflation rate, shall transitorily apply;
 - iv. **remaining years of the five-year regulatory period** (T_2-T_5), in which the new charges are regularly in force; during this period higher/lower revenues possibly implied by the application - for year (T_1) - of the transitional charging scheme established in place of the "regime charge" will also be taken into account, for a proper IM's cost recovery (see point 2.C below).
- 2) **Procedure** for preparation, verification and entry into force of the new charge, according to the following stages:
 - A. For the verification of compliance, by the **end of May** of the bridge year (T_0), the IM presents to the Authority the new charging scheme for the years from T_1 to T_5 , drawn up in accordance with the criteria set by the Authority and accompanied by the following documents, which are detailed in the measures below:
 - a. a report describing the choices made in relation to: perimeter and allocation of costs, traffic growth, application of the relevant principles and criteria for calculating the charges ;
 - b. audited regulatory accounts, drawn up on the basis of the schemes provided by the Authority, relating to the base year (T_{-1}) of the regulatory period, with detailed documentation (including the list of activities and long-term assets underlying the regulated services);
 - c. base-year evidence of total costs (including depreciation and return on capital, calculated according to the principles and criteria established by the Authority) allocated to each regulated activity (MAP, other services) according to the regulatory accounts schemes defined by the Authority;
 - d. for the Minimum Access Package, base-year evidence of the costs directly incurred as a result of operating

the train service (direct costs), pursuant to Regulation (EU) 2015/909;

- e. report on total cost and direct cost dynamics for the bridge year and for the entire regulatory period (calculated in accordance with the principles and criteria established by the Authority;
- f. final data on traffic or level of use of service facilities for the base year, disaggregated according to the parameters of supply and demand adopted in the new charging scheme;
- g. traffic forecasts on the railway network and level of use of service facilities for the bridge year and for each year of the entire regulatory period, disaggregated according to the supply and demand parameters adopted in the new charging scheme;
- h. calculation, for each year of the entire regulatory period, of unit charges for each type of service and, where appropriate, for each type of network and time slot, based on the principles and criteria established by the Authority;
- i. simulation of the effects of the application of the new charging scheme on the costs of Railway Undertakings, based on traffic and level of use of service facilities in the base year, and comparison with the existing system;
- j. any traffic growth incentive schemes that may be adopted and the underlying reasons.

B. The new charging scheme enters into force on **the first of January** of the year T_1 , which is the starting date of the multi-year regulatory period; however, a “transitional system” will be applied from that date until mid-December of the same year, with application of the same charge in force in the bridge year (T_0), increased by the planned inflation rate (as formalised by the Government at the date of submission of the documents referred to under above A).

C. With respect to year T_1 , the IM shall identify a notional entry to be calculated as the difference, if any, between:

- a. the amount of charge revenues obtained by applying the “transitional system” provided for year T_1 , using as a basis of calculation the traffic forecasts developed for determining charges for the same period;
- b. the amount of charge revenues (related to the same year T_1 and the same traffic) calculated on the basis of the charges as specified under A above.

For the purpose of determining the charges, the value of the notional entry, calculated as above, shall be used to determine an additional (positive or negative) charge component to be assigned to the expected traffic for the remaining part of the four-year regulatory period while ensuring financial neutrality, with a structuring of market segments which is consistent with that adopted by the IM for the charge calculated for that period, according to above A.

- c. By **mid-September** of the bridge year, following the necessary checks, the Authority certifies the compliance of the new charging scheme with its principles and criteria (requiring amendments, where necessary) and authorizes its publication.
- d. By **mid-December** of the bridge year, the IM publishes the Network Statement within the time limits provided for by Directive 2012/34/EU and by the Italian law transposing the Directive; the document shall include the charges resulting from the application of the new charging scheme, as well as, with respect to year T_1 , the charges resulting from the application of the “transitional system” referred to under B.

Measure 5 **Regulatory scope**

With regard to Measure 1 (a), the Authority intends to regulate:

- a) the criteria for defining the cost directly incurred as a result of operating the train service, in accordance with article 17, paragraph 4 of Legislative Decree No 112/2015 and on the basis of the modalities for cost calculation defined by the Commission Implementing Regulation (EU) 2015/909;
- b) the functional criteria in order to enable the IM to fully recover the relevant efficient costs associated with the access and use of railway infrastructure and with connecting service facilities, pursuant to article 17 paragraph 1 of Legislative Decree No 112/2015;

- c) the criteria, pursuant to article 17, paragraph 5 of Legislative Decree No 112/2015, for including, where appropriate, a charge which reflects the scarcity of capacity of an identifiable section of the infrastructure during periods of congestion;
- d) the criteria, pursuant to article 17, paragraph 6 of Legislative Decree No 112/2015, on the basis of the modalities for cost calculation defined in Commission Implementing Regulation (EU) 2015/429, for the purpose of taking into account the environmental effects caused by the operation of the train, in order to encourage the retrofitting of wagons with low-noise braking technology;
- e) the criteria for the application of incentives aimed at equipping trains with the control-command and signaling system, known as European Train Control System (ECTS), pursuant to article 18(9) of Legislative Decree No 112/2015;
- f) the criteria for the application of charge reductions for services provided within specific Regions or Autonomous Provinces, as a result of special regulations, to take account of any burdens borne by local entities for improving the infrastructure;
- g) the criteria concerning the procedures by which the IM may establish or maintain higher charges, pursuant to article 18(8) of Legislative Decree No 112/2015, for the high-speed/high-capacity system and other specific investment projects, that are to be implemented in the future or have been completed after 1988, on the basis of the total long-term costs of these projects.

Measure 6 **Cost-orientation principle**

The charges for the Minimum Access Package (and for access to the infrastructure connecting service facilities) shall be related to the relevant and efficient costs, in line with the need:

- to ensure that the operation of MAP services, under efficient conditions and net of public contributions, is not a source of economic and financial imbalance for the IM;
- to prevent misuse of MAP charges for the purpose of covering inefficient or non-relevant costs, or loss of income from other sources.

The charges will be calculated according to the following equation:

$$R_c + E_{cdp} + E_{fpp} + E_{ec} = C_o + C_a + C_{rc}$$

where:

R_c revenues from MPA charges;

E_{cdp} Government contributions as defined in Contractual agreements, referred to the relevant costs for the activities underlying MAP services;

E_{fpp} non-refundable revenues from private and public sources, to the extent attributable to the activities underlying MAP services;

E_{ec} surpluses arising from other commercial activities, as defined hereunder:

- 100% of the gross margin (revenues less costs, including depreciation) of other business activities, qualified by the IM as ancillary, deriving from the use of the railway infrastructure or in any case associated with such infrastructure, pursuant to article 13 of Legislative Decree No 112/2015;
- 50% of the net margin of other business activities (revenues less cost, net of depreciation), qualified by the IM as not connected to the railway infrastructure;

C_o relevant and efficient operating costs relating only to MAP services;

C_a depreciation of the net book value of the assets underlying MAP services, determined net of public contributions;

C_{rc} Return on Net Invested Capital (net of public contributions) related to MAP services.

There follows that:

$$R_c = C_{nt} = C_o + C_a + C_{rc} - (E_{cdp} + E_{fpp} + E_{ec})$$

namely, in order not to cause imbalances of the IM accounts, the expected revenues from MAP charges must equal the **Efficient total cost** C_{nt} connected with the related services, calculated as the algebraic sum of the following four components:

- relevant and efficient operating costs, as outlined in Measure 10;
- depreciation of the value of the self-financed relevant activities;
- return on the relevant self-financed capital;
- with minus sign, the sum of the values related to Government contributions contracted in the Program Contracts, to non-refundable revenues from public and private sources and to surpluses from other commercial activities, as defined above.

The component referred to in (a) is to be identified with the so-called Opex, while the components referred to in (b) and (c) are to be identified with the so-called Capex.

Measure 7 **Regulatory Model: direct costs**

Based on the regulatory provisions, within the *Efficient total cost* relating to MAP services, for charging purposes it is necessary to take into account the "cost that is directly incurred as a result of operating the train service" (*Direct costs*), by applying the rules provided for in Implementing Regulation (EC) 2015/909.

Direct costs on a network-wide basis can be identified according to the following formula:

$$C_d = C_{nt} - C_{nna}$$

where:

- C_d *Direct costs*: costs that are directly incurred as a result of operating the train service;
- C_{nt} *Efficient total cost* related to the Minimum Access Package services;
- C_{nna} non-eligible net costs, namely those listed in article 4 of Implementing Regulation (EC) 2015/909, assessed net of the sum of values, as defined in Measure 6, related to Government contributions defined in the Contractual Agreements, to non refundable revenues from public and private sources and to surpluses from other commercial activities.

Measure 8 **Regulatory model: average unit charge**

Costs that are directly incurred as a result of operating the train service (*Direct costs*), assessed on an annual basis, shall result in a Direct Unit Cost and thus in charges applicable to undertakings requesting infrastructure capacity: without prejudice to the modulation referred to in the following measures, the average unit charge of reference for access to the railway infrastructure will be in principle determined on the basis of the Direct Unit Cost, starting from total direct costs C_d , determined in accordance with the equations referred to in Measures 6 and 7, and using the following formula:

$$T_{m,t} = \frac{C_{d,t}}{P_t}$$

where:

- $T_{m,t}$ Average unit charge, in year t ;
- $C_{d,t}$ Costs that are directly incurred as a result of operating the train service (Direct costs), in year t ;
- P_t Traffic units estimated for year t .

For the purpose of determining the reference average unit charge, to be applied each year within the infrastructure charging scheme, the IM shall provide, after appropriate consultations with the Railway Undertakings (RUs), traffic units forecasts until the last year of the regulatory period; the forecasts shall be calculated on the basis of forecasting

models, to be derived from the most suitable international practices, for passenger and freight demand, modal distribution, spatial and temporal distribution on the railway network.

The IM may calculate direct unit costs through duly tested and verified econometric or engineering cost modelling, provided that adequate proof is given to the Authority that unit costs include only the direct costs that are directly incurred as a result of operating the train service and, in particular, do not include any of the costs referred to in Article 4 of Implementing Regulation (EC) 2015/909.

Measure 9 **Regulatory model: modulation of charges**

Starting from the average unit charge, the Manager shall determine the actual charges to be assigned to each path by applying the principles and criteria established by the Authority.

Measure 10 **Regulatory Model: Temporal dynamics of variables related to charges**

For the purpose of determining the charges to be applied within the infrastructure charging scheme, the Authority establishes the criteria for estimating the dynamics of the variables related to the determination of charges over the regulatory period.

In particular:

- a) For the calculation of **Operating Costs** as defined in Measure 6 (C_o), the IM shall ensure that **total annual operating costs** are not higher than the value which derive from the following procedure, starting from the previous year's value:

$$C_{o,t} = C_{v,u,(t-1)} \cdot (1 + I_{(t)} - X) \cdot P_t + C_{f,u,(t-1)} \cdot (1 + I_{(t)} - X) \cdot R_t$$

in which

$$C_{v,u,(t-1)} = \frac{C_{v,(t-1)}}{P_{(t-1)}}$$

$$C_{f,u,(t-1)} = \frac{C_{f,(t-1)}}{R_{(t-1)}}$$

$$C_{v,(t-1)} + C_{f,(t-1)} = C_{o,(t-1)}$$

where:

$C_{o,t}$ overall operating costs in year t ;

$C_{o,(t-1)}$ overall operating costs in year $(t - 1)$;

$C_{v,u,(t-1)}$ unit variable costs in year $(t - 1)$;

$C_{f,u,(t-1)}$ unit fixed cost in year $(t - 1)$;

$C_{v,(t-1)}$ variable costs in year $(t - 1)$, corresponding to item C_d (*direct costs*) referred to in above Measure 7, only for the part related to the opex component;

$C_{f,(t-1)}$ fixed costs in year $(t - 1)$, corresponding to item C_{nna} (*non-eligible net cost*) referred to in above Measure 7, only for the part related to the opex component;

P_t traffic units, in train*km, estimated for year t ;

R_t extension of the railway infrastructure, measured in line km, managed by the IM in year t ;

$P_{(t-1)}$ traffic units estimated for year $(t - 1)$;

$R_{(t-1)}$ extension of the railway infrastructure managed by the IM in year $(t - 1)$;

$I_{(t)}$ planned inflation rate for year t as resulting from the economic and financial planning documents approved and published by the national Government in the bridge year

X targeted **annual efficiency rate** on operating costs.

The values of unit fixed costs, unit variable costs, traffic units and extension of the railway infrastructure in the base year shall be consistent with the final values of regulatory accounts.

The Authority establishes the value of the **minimum annual efficiency rate** of the IM's unit operating costs, based on quantitative assessments of the time series of the relevant management data and with reference to the best international practices available in the railway industry, as well as taking into due account the efficiency targets related to the Contractual Agreements between the IM and the Government, so as to define an annual productivity gain which is consistent with the targeted gradual efficiency improvement.

For the purpose of determining the charges for the first regulatory period, the annual efficiency rate fixed by the Authority is 2%, to be applied for each year following the "base year" referred to in Measure 4.

- b) The **net book value of long-term assets**, which is the basis for the calculation of depreciation and return on invested capital, shall be firstly quantified in the base year net of all components reported in the above equations and then calculated, in principle, according to the following dynamics:

$$I_{a,t} = I_{a,(t-1)} + L_{ic,(t-1)} + V_{(t-1)} - A_{(t-1)} \pm R_{(t-1)} \pm \Delta_{vr,(t-1)}$$

where:

- $I_{a,t}$ self-financed long-term assets as of 1 January of year t ;
- $I_{a,(t-1)}$ self-financed long-term assets as of 1 January of year $(t - 1)$;
- $L_{ic,(t-1)}$ fixed assets increases following works (already in progress), completed and entered into operation during year $(t - 1)$;
- $V_{(t-1)}$ new fixed assets completed and entered into operation during year $(t - 1)$;
- $A_{(t-1)}$ depreciation entered during year $(t - 1)$;
- $R_{(t-1)}$ adjustments (increases and/or decreases in the long-term asset value) entered during year $(t - 1)$;
- $\Delta_{vr,(t-1)}$ increase or decrease in the infrastructure residual value at the end of the concession, entered during year $(t - 1)$.

- c) In order to ensure a gradual evolution of charges, it is allowed to include (positive or negative) notional entries in the eligible costs, so as to advance or delay their accounting with respect to the year of accrual.

The inclusion of notional entries in the eligible costs is allowed provided that the economic and financial neutrality principle is complied with within the regulatory period considered as a whole. In accordance with this principle, the balance of the notional entries shall equal zero within the same period.

In accordance with the provisions of Measure 4, only the notional entry PF_1 , as defined therein, is applicable in the first year of each regulatory period.

The application of notional entries is in any case subject to the Authority's assessment.

Chapter III. MAP Costing

Measure 11 Cost categories and economic equilibrium of the Infrastructure Manager

The regulatory model of the Minimum Access Package shall be based, in the first place, on efficient "**Direct Costs**", i.e. costs directly incurred as a result of operating the train service, as provided for by Implementing Regulation (EU) 2015/909, and, secondarily, on **Efficient Total Costs** relating to the provision of services of the minimum access package and access to infrastructure connecting service facilities; the Efficient Total costs will include both Opex (operating costs) and Capex (depreciation and return on invested capital) components, to be determined on the basis of the criteria in Measure 6.

Measure 12 Reference period for costs calculation

Efficient Total Costs and *Direct Costs*, as defined above, shall be measured:

- a) *ex post*, with reference to the Base Year of the Regulatory period;
- b) in their dynamic development, starting from the Base Year and until the end of the five-year regulatory period, according to the principles and criteria established by the Authority.

Measure 13 Direct Costs, pursuant to Implementing Regulation (EU) 2015/909

With reference to the *Direct Costs* component, "cost that is directly incurred as a result of operating the train service" is identified with the short-term incremental cost directly incurred for the effective use of the railway infrastructure, i.e. the cost attributable to an identifiable additional railway service. For this purpose, the most significant element for its measurement is the cost resulting from the wear and tear caused by the train service.

Should the IM intend to include, for the purpose of calculating direct costs on a network-wide basis, the costs referred to in article 3, paragraph 4 of Implementing Regulation (EU) 2015/909, adequate evidence shall be provided that these costs can be transparently, robustly and objectively measured and it shall be proved, *inter alia* on the basis of international best practices, that such costs are directly incurred as a result of operating the train service.

Measure 14 The IM's costs not covered by direct cost charging

Under article 17 (8), second sentence, of Legislative Decree No 112/2015, the residual component of *Efficient Total Costs*, not falling into *Direct Costs*, shall be considered, provided it is relevant, efficient and adequately documented, for achieving the full recovery of total costs related to access and use of railway infrastructure and connecting service facilities.

Measure 15 Perimeter of operating costs (Opex)

For the allocation and eligibility for regulatory purposes of the Opex relating to *Efficient Total Costs* and *Direct Costs*, the following costs shall be considered with reference to the IM's financial statements:

- a) cost of raw materials, consumables and goods;
- b) cost of services;
- c) cost for use of third party assets;
- d) cost of staff;
- e) other operating costs.

These costs shall be assessed net of any asset adjusting entries (such as capitalization for internal works or changes in

inventories).

By contrast, the costs mentioned below are ineligible costs for regulatory purposes, and in no case they can be considered in the perimeter of Opex:

- a) extraordinary charges;
- b) any expenses resulting from non-compliance with standards and requirements;
- c) provisions of any kind;
- d) financial charges;
- e) taxes;
- f) charges that, in the light of the criterion of relevance, are not attributable to the ordinary production process.

Measure 16 Perimeter of costs of capital (capex): Net book value of long-term assets

For the allocation and eligibility for regulatory purposes of the Capex relating to *Efficient Total Costs* and (only for eligible depreciation) to *Direct Costs*, the IM shall refer to the Net Book Value of long-term assets, determined as follows:

- a) the net book value is represented by historic values, increased for gain of value (including extraordinary improvements and maintenance) or decreased for loss of value, net of any public contributions on plant and equipment and net of depreciations
- b) in case of a debt reduction, whereby all or part of the Infrastructure Manager's debts have been assumed by another entity, the IM shall use a relevant part of the debt reduction to reduce the assets value and the corresponding costs on a network-wide basis;
- c) the reference to historic cost values shall be maintained, unless such values are no longer available or where current values are lower than those based on historic costs. The IM shall provide adequate evidence in this respect.
- d) historic cost values of the assets shall be based on the amounts actually paid and documented by the IM at the time of acquisition or internal production of these assets;
- e) the acquisition or production cost may include directly attributable additional costs including:
 - costs incurred to prepare assets for use;
 - financial costs incurred into until completion of all activities necessary to prepare the assets for use;
 - any costs of dismantling and relief operations to be borne under contractual obligations requiring the asset to be returned to its original conditions;
- f) the cost of acquisition or production may include, also for the purpose of determining depreciation rates, expenses related to renewals of the existing railway infrastructure (i.e. improvements and extraordinary maintenance) actually incurred and expected to be incurred (based on substantiated assessments) throughout the life of the concession, provided that they are entirely contributed by the State and without any effect on the so-called "regulatory" depreciation which may be related to them;
- g) on the other hand, the acquisition or production cost shall not include:
 - incremental expenses, not yet actually incurred, that contribute to the total expected production (thus including also future expansion or development);
 - the costs referred to under above sub-paragraph f), for any part not covered by public funding, with resulting effect on the so-called "regulatory" depreciation which may be related to them;
 - financial costs incurred into after the completion of all activities necessary to prepare the assets for use, or expected to be incurred throughout the life of the concession, relating to the investment finance for the railway infrastructure, for this purpose directly capitalised, including costs relating to any hedging contracts, net of any public contributions for plant and equipment, already obtained and expected;

These expenses, specifically included in the assets that can be entered into the balance sheet pursuant to Ministerial Decree of 23 July 2007 of the Ministry of Economy and Finance (MEF), albeit subject to the limitations imposed by IAS accounting standards, shall in any case be reported through separate accounting/regulatory evidence.

State-sourced share capital increases, whether direct or indirect, do not apply for the purpose of quantifying public contributions related to the Net Book Value of long-term assets.

Decreases for loss of value also include extraordinary devaluations.

Assets may be included in the long-term asset value only from the time when they are involved in the production process for the supply of the Minimum Access Package.

The Net Book Value for the purpose of determining depreciation shall be reduced by the Residual Value of the infrastructure at the end of the concession.

Measure 17 Cost of capital (capex): Depreciation

For the allocation and eligibility for regulatory purposes of the Capex relating to *Efficient Total Costs* and (only for the allowed depreciation) to *Direct Costs*, depreciation expenses shall continue to be determined by the IM, in compliance with existing rules and IAS accounting standards, based on variable quotas depending on the production volumes, measured in train-kilometres.

The amount of total production planned during the concession period shall be computed on the basis of the provisions of MEF Ministerial Decree of 23 July 2007.

Depreciation relating to the Net Book Value of long-term assets described in sub-paragraph (f) of a.m. Measure 16, shall be highlighted separately and, if connected to the HS/HC system or other specific investment projects, they shall constitute a cost item outside *Efficient Total Costs* (and hence also outside *Direct Costs*), known as "**Long-term costs**".

Measure 18 Cost of capital (capex): Net Invested Capital (NIC)

For the allocation and eligibility of the Capex within the *Efficient Total Costs*, the Net Invested Capital (NIC) comprises the following components:

- (+) Net fixed assets consisting of tangible, intangible and financial assets in place in the Base Year, expressed at their net book value, excluding:
 - capitalised financial costs;
 - long-term assets under sub-paragraph (f) of a.m. Measure 16 ;
- (+) Assets under construction (AUC), including advance payments to suppliers, net of any public contributions and any capitalised financial costs;
- (±) Net working capital, represented by the balance resulting from inventories, account receivables, other receivables and trade payables or other net liabilities;
- (-) Asset adjustment entries, represented by severance payments or other funds;
- (-) Residual value of the infrastructure, equal to the sum of the cost of land, as an asset which is not subject to deterioration, and any other tangible and intangible assets (mainly bridges, viaducts, tunnels, station areas) that did not run out of their functionality over the life of the concession;

Net Invested Capital, for the reasons specified in Measure 25, shall be determined on a network-wide basis, without drawing any distinction between the values of the network currently defined as Conventional and those of the network currently defined as High Speed/High Capacity.

In any case, the part directly attributable to services other than MAP shall be deducted from Net Invested Capital (and consequently reallocated), as described under Title III below.

The IM shall provide for the reallocation of the NIC transparently, robustly and objectively, possibly through the use of appropriate drivers.

Measure 19 Cost of capital (capex): Residual value of the infrastructure

As the residual value of the infrastructure is an important adjustment entry with respect to Net Invested Capital, it shall be assessed in compliance with the principle of consistency of accounting policies referred to in article 2423 b of the Civil Code.

Any exceptions to the above principle of consistency of accounting policies:

- a) may be adopted only in exceptional cases;
- b) may only be applied within the framework of assessment criteria indicated by the legislator;
- c) will imply an immediate obligation to report and justify the resulting effects to the Authority.

Measure 20 Cost of capital (capex): WACC for the return on Net Invested Capital

The return on capital is generated by applying a rate of return to the Net Invested Capital (NIC), according to the method based on the weighted average cost of capital (WACC), based on the following formula:

$$r = g \cdot \frac{r_d \cdot (1 - t_{ires})}{1 - t_e} + (1 - g) \cdot \frac{r_e}{1 - t_e}$$

where:

r_d allowed cost of debt;

r_e allowed cost of equity;

g % of IM's financial debt (on total financing sources);

$(1 - g)$ % of IM's equity (on total financing sources)

t_{ires} tax shield;

t_e tax rate on IM's income;

r rate of return on capital in nominal terms, which is converted into real terms by applying the following formula:

$$r_{real} = \frac{1 + r}{1 + P} - 1$$

P being the arithmetic average of the planned inflation rates for each year of the regulatory period as resulting from the last Economic and Financial Planning Document published in the Bridge Year by the Government.

TABLE FOR WACC CALCULATION

1	g	D/(D+E)
2	$(1 - g)$	E/(D+E)
3	r_{fr}	Risk free rate of return
4	p_d	Debt risk premium
5	$r_d = r_{fr} + p_d$	Allowed cost of debt
6	erp	Equity risk premium
7	β_e	Equity beta
8	$r_e = r_{fr} + \beta_e \cdot erp$	Cost of equity
9	t_{ires}	IRES (Corporate income tax) rate
10	t_e	Total tax rate
11	$r_{(n.post-tax)} = (r_d \cdot (1 - t_{ires}) \cdot g) + r_e \cdot (1 - g)$	Nominal after-tax Wacc
12	$r_{(n.pre-tax)} = \frac{r_{(n.post-tax)}}{1 - t_e}$	Nominal pre-tax Wacc

13	P	Planned inflation rate
14	$r_{(real,pre-tax)} = \frac{1 + r_{(n,pre-tax)}}{1 + P} - 1$	Real pre-tax Wacc

The criteria for determining the above parameters are as follows:

- a) For the purpose of WACC - with reference to the determination of financial leverage, i.e. $g (= D/(D + E))$ and equity $(1-g)$ - the Authority has developed a market benchmark assuming as reliable reference:

- as for international benchmarking, data of the German IM (DB ML Group Infrastructure) and the data developed for the British market by the British regulator (ORR); the selected panel includes entities with different management models but representing reference regulatory methods in Europe;
- as for national benchmarking, data of two major Infrastructure Managers, albeit operating in another sector (*Terna* for the electricity network and *Snam* for the gas network) ;

On the basis of the above benchmark, for the purpose of determining the notional level of the financial leverage within the WACC formula, the financial debt share ($g = D/(D + E)$) shall be conventionally set at **60.00%**, while the equity's share $(1-g)$ at **40.00%**.

In any case, the Authority reserves the right to assess, during the regulatory period, the trend of these parameters, in order to pursue the allocation of efficient costs and also an optimal use of the leverage. The parameters for WACC calculation shall be updated at the beginning of each regulatory period.

- b) The allowed cost of debt (r_d) is equal to the sum of the rate of return associated with risk-free assets - risk free rate (r_{fr}) - and debt risk premium (p_d).

The allowed risk-free rate r_{fr} shall be calculated as the arithmetic average of the daily gross returns of the ten-year BTP (long-term Treasury bond), a benchmark provided by the Bank of Italy with reference to the twelve months coinciding with the Base Year of each regulatory period.

A debt risk premium (p_d) is allowed up to a maximum of 2 percentage points; in any case, the Authority reserves the right to check any requests from the IM. Within the above limits the premium to be attributed to the IM shall be calculated as the difference between the average cost of the IM's specific financial debt (calculated on the basis of the average values, at the beginning and end of the year, resulting from the financial statements for the Base Year) and the r_{fr} value.

In the construction of the debt risk premium, specific and objective conditions for the IM's access to credit can be taken into consideration. The evaluation of debt conditions should be based on the relevant rating or, if the IM has no rating, on that assigned to the parent company (average value of last 12 months) and on the average spread applied - with reference to debt/bond issue of comparable length - to similar rating categories (in the same period).

Further, as part of the average cost of financial debt, the IM might also consider:

- extra charges related to interest rate and exchange rate risk coverage (the latter if related to foreign currency borrowings). As a general rule, derivatives will not be accepted;
- extra charges directly related to debt raising/bond issuing (bank, legal, administrative expenses, etc.).

- c) The cost of equity shall be determined according to the following relationship:

$$r_e = r_{fr} + \beta_e \cdot erp$$

where

r_e cost of equity;

r_{fr} risk free rate

β_e beta equity (quantitative measure of non-diversifiable systematic risk of equity stock)

erp equity risk premium

The parameter r_{fr} is determined as specified above.

The β_e (beta equity) coefficient is generally measured on the basis of the covariance between returns on the specific investment and returns of a market portfolio. It follows that β_e can be derived directly from the stock market for listed companies, while for non-listed companies indirectly by applying values derived from a sample

of comparable listed companies (*comparables*).

On the basis of the international and national benchmark previously described, the Authority conventionally determines this parameter equal to **0.70**.

Further, as for *erp* (equity risk premium), given by the difference between the total return on stock market and the return on risk-free financial assets, the Authority sets a value of 5% for the entire regulatory period; this value is on average consistent with the range given by the values calculated as arithmetic mean and geometric mean reported by the survey by Dimson, Marsh, Staunton and Wilmot (Credit Suisse Yearbook 2014), based on the timeseries approach, as well as consistent with the *erp* value estimated for Italy by the survey by Fernandez, Aguierramalhoa and Corres ("Market Risk Premium used in 82 countries in 2012: a survey with 7,192 answers", November 2013), according to an alternative methodological approach based on analysts' assessments.

- d) The above parameters allow to determine post-tax WACC. In order to define pre-tax WACC, upon initial application and pending specific assessment of the tax effects on the IM, aimed at identifying a suitable reference rate for the actual impact of taxation (effective tax rate), reference shall be made to the legal tax rate equal to 31.7%, obtained as the sum of the tax rates levied on undertakings, i.e. IRES (corporate income tax) equal to 27.5% and IRAP (regional tax on productive activities), which amounts to 4.2% for companies holding concessions for the management of public works and services. The rates are subject to changes at the national and regional level.

As for the tax shield level deducted from the cost of debt capital, reference shall be made to the IRES tax rate.

Chapter IV. MAP Pricing

Measure 21 Cost-orientation

On the basis of the relevant and efficient costs underlying the services of the Minimum Access Package and for access to the infrastructure connecting service facilities (articles 17 and 18 of Legislative Decree No 112/2015), the IM shall determine the relevant charges.

The cost components to be considered for this purpose are as follows:

- a) **"cost directly incurred as a result of operating the train service"** (*Direct Costs*), in connection with the MAP, whose method of calculation is described in Measure 7;
- b) **residual relevant and efficient costs**, the recovery of which is aimed at ensuring that the provision of the services of the Minimum Access Package and for the access to the infrastructure connecting service facilities does not produce an economic imbalance for IM accounts, in accordance with the principle provided for in Measure 6; these costs are determined by the difference between *Efficient Total Costs* ("*for providing the services of the Minimum Access Package and for the access to the infrastructure connecting service facilities*", net of Government contributions defined in Programme Contracts, non-refundable revenues from public and private sources and share of surpluses from other commercial activities) on the one hand, and the costs referred to in under (a) on the other.
- c) **any costs** relating to:
 - i. **scarcity of capacity**, for identifiable infrastructure sections during periods of congestion
 - ii. **environmental effects** and, in particular, those encouraging the retrofitting of wagons with low-noise braking technology;
 - iii. encouraging the introduction of the **ETCS** system ("European Train Control System"), in case such incentives are not covered by adequate public funding;
 - iv. loss of revenue related to the application of **charge reductions for services provided within specific Regions or Autonomous Provinces**, as a result of special regulations, to take account of any burdens borne by local entities for improving the infrastructure;
- d) **"long-term costs"**, for "*the high-speed/high-capacity system and other specific investment projects*" (article 18 (8)), where they have not been already taken into account for the purposes of the IM's economic equilibrium under (b), determined according to the procedure described in Measure 17.

Measure 22 Components of the charge

For the purpose of connecting infrastructure charges to costs, pursuant to the provisions of Decree-Law No 201 of 6 December 2011, article 37(2)(b) and Legislative Decree No 112/2015, article 17(1), the charges for the Minimum Access Package and for access to the infrastructure connecting service facilities shall be determined in accordance with the following criteria and divided into the following macro-components:

- a) **A component (Basic Charge)**, so designed that the related total revenues allow, pursuant to article 17(4) of Legislative Decree No 112/2015, to obtain recovery of *Direct Costs* on a network-wide basis upon initial application.

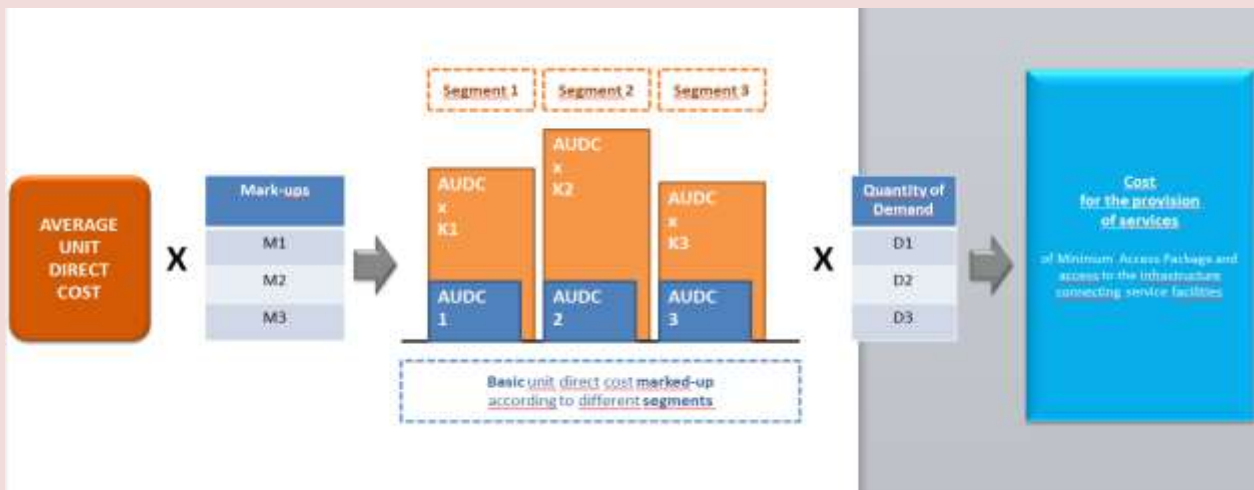
As to this component, the IM shall propose a modulation of the average costs so as to take into account the different wear and tear caused to the infrastructure in relation to one or more of the parameters mentioned in article 5, paragraph 2 of Implementing Regulation (EU) 2015/909, and according to the criteria set in Measure 28 below.

- b) **B component**, so designed that the related total revenues are such to allow, when added to the A component and net of any compensation with the following relevant "C" components, to obtain recovery of the relevant and efficient total costs, valued on a network-wide basis and net of relevant Government contributions, as provided within Programme Contracts, non-refundable revenues from public and private sources, as well as surpluses from other commercial activities ("*Efficient Total Costs*" referred to in Measure 6), in line with the need to ensure that the Minimum Access Package does not produce economic imbalances for the IM.

In order to ensure consistency of the charging scheme, the Authority establishes the criteria for the determination of this component by the IM, by taking as reference the general provisions of article 32, paragraph 1 of Directive 2012/34/EU, or by adopting the "mark-up" approach outlined therein (related to the "pairs" referred to in Annex VI, paragraph 1 of the Directive) and by:

- having regard to the sustainability for the market;
- applying efficient, transparent and non-discriminatory principles;
- ensuring at the same time optimal competitiveness of rail market segments;
- providing that the charging scheme complies with the productivity increases achieved by railway undertakings.

In particular, *mark-ups* are aimed at increasing the value of the A component, calculated on the basis of *Direct Costs*, so as to obtain a set of mark-ups (B component) differentiated by "segments", such that the sum of A and B Components allows (once each value is applied to the quantity of demand for each segment) to obtain full recovery of *Efficient Total Costs*.



- c) any **C1 component** on specific paths and for well-identified time periods, related to a cost that reflects the scarcity of capacity on those paths;
- d) any **C2 component**, related to the environmental effects, and, in particular, those caused by the operation of specific rolling stock on the network, on the basis of the calculation modalities provided for by Implementing Regulation (EU) 205/429 and subject to the IM economic neutrality provided for by article 7(3) of the above Regulation;
- e) any **C3 component**, applicable to rail corridors mentioned in Decision 2009/561/EC of the European Commission, concerning incentives to equip trains with the control-command and signalling system, known as European Train Control System (ECTS), whose application does not globally affect IM revenues;
- f) any **C4 component**, applicable to services provided in specific territories, related to the application of reductions in the charges for services rendered in autonomous Regions or Provinces, in relation to specific regulatory provisions, in order to consider any charges borne by such entities to improve the infrastructure.

In summary, the access charge to the railway infrastructure will be broken down into the following components:

Charge Component	Component description	Charging principle	Sub component	Description sub-component and modulation	Weight Limits	Variables to be considered
A	<u>Direct Costs</u>	COST-BASED	A1	MASS	50% min	Classes of trainset overall mass
			A2	SPEED	50% max	Classes of path traffic speed
			A3	CONTACT WIRE	50% max	Classes of rolling stock
B	<u>Full recovery of relevant and efficient costs of the Minimum Access Package</u>	MARKET-BASED	B1	DEMAND SEGMENTS	50% min	Demand segmentation: Pairs
			B2	NETWORK TYPE	50% max	Supply segmentation: Network macro-types
			B3	TRAIN SLOTS	50% max	Supply segmentation: Train slots
C	<u>Externalities</u>	COST-BASED	C1	SCARCITY OF CAPACITY	n.a.	Type of network, slot and period
			C2	ENVIRONMENTAL EFFECTS	n.a.	Type of rolling stock
			C3	ETCS	n.a.	Type of network, type of rolling stock
			C4	REGIONAL OFFSETTING	n.a.	Territorial scope

Access charges may be increased on the basis of the following specific regulatory requirements:

- Based on the powers conferred under article 18(8) of Legislative Decree No 112/2015 and subject to the conditions specified therein, the IM may set higher charges related to the recovery of any "long-term residual costs" which have not already been repaid by the aforementioned B component of the charge. It follows that any such sub-component of the charge shall be related to a cost that cannot exceed the value of *Long-term costs* determined as described in Measure 17;
- The Ministry for Infrastructure and Transport, in agreement with the Ministry of Economy and Finance, after consultation with the Authority, may adopt a decree establishing a surcharge in addition to the charge provided for in article 12, paragraph 12 of Legislative Decree No 112/2015, in line with the need to ensure coverage of the charges for universal rail transport services of national interest, under public service contracts;
- The Ministry for Infrastructure and Transport, in agreement with the Ministry of Economy and Finance, subject to verification of sustainability by the Authority, may adopt a decree providing for mark-ups to be applied in case of serious economic imbalances to the IM accounts, produced by extraordinary and unpredictable events; in the application of these mark-ups, competent Ministries shall take into account the regulatory accounts statements drawn up by the Manager in accordance with the principles and criteria established by the Authority.

The above mark-ups shall form the **D component** of the charge, if any. The Authority considers that this component, where applied pursuant to the provisions of Legislative Decree No 112/2015, shall comply with the same breakdown and segmentation as defined for the B component of the charge.

Other components	Description	Criterion	Desirable variables to be considered
D	Surcharges	MARKET-BASED	a) Segmentation of supply (type of network, time slot) b) Segmentation of demand (type of service, market segment)

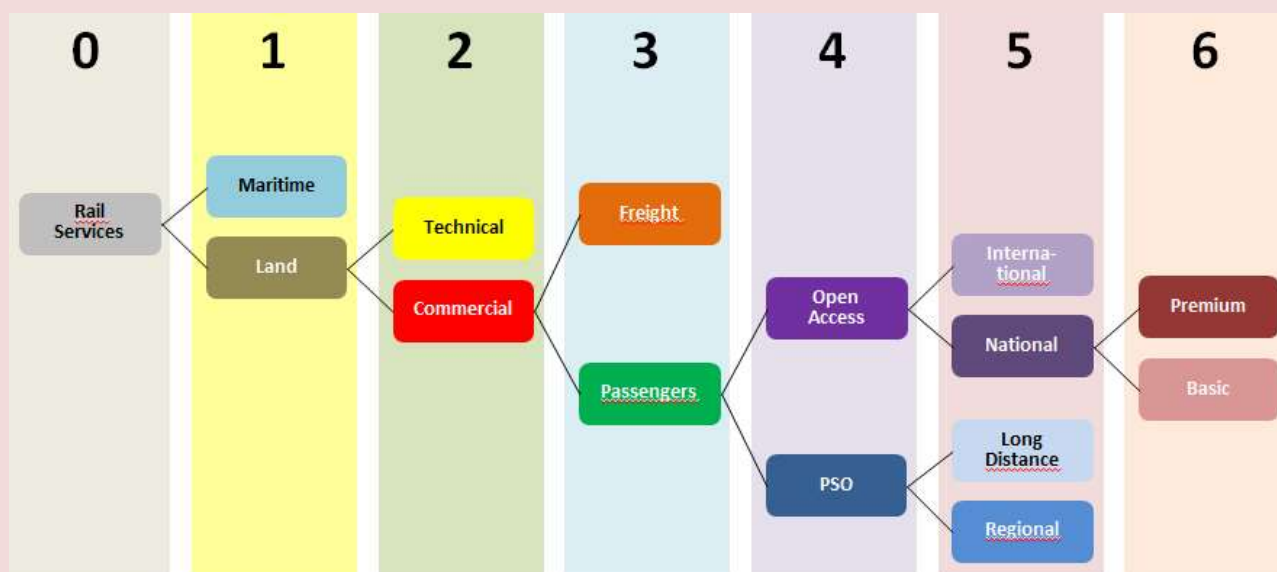
Measure 23 Basic principles for modulation of charges

The principles of breakdown and modulation which the IM shall refer to for the determination of MAP charges are the following:

1. **SIMPLICITY:** each component of the charge shall be characterized by a **single fixed basic rate** relating to the relevant average cost. Based on this average rate, the effective rate will be determined by applying **adjusting coefficients** selected by the IM according to **categories of variables** related to the type of costs to be covered.
2. **PRE-DETERMINATION:** it shall be possible for each **railway undertaking** to **pre-determine** the charge relating to the path of each train.
3. **MODULAR STRUCTURE:** **threshold values** for the classification of variables and **numerical values** of the relevant coefficients shall be able to provide a wide range of **modulation tools**, suitable for the necessary "fine-tuning" to optimize charges according to the targeted economic objectives.
4. **COST-BASED AND MARKET-BASED APPROACH:** while the **A** and **C** components, mainly related to technical factors (network wear and tear and externalities, respectively), shall be modulated according to a **cost-based** approach, the **B** component and any **D** component may be **market-based**, taking into account the sustainability criteria set by the Authority under Measure 31, also by reference to European and national objectives and policies for sustainable mobility and under consideration of public funding of regional and national passenger services through the imposition of service obligations.
5. **COMPENSATION BETWEEN COMPONENTS:** since the components linked to wear and tear and to environmental effects can result in penalties for certain market segments compared to others, with a potentially discriminatory impact on the access to infrastructure, it shall be possible, through the market-based components of the charge, to achieve the necessary **compensation** in respect of these burdens, through the targeted use of mark-ups.

Measure 24 Market segments

Taking into account the pairs proposed by Directive 2012/34/EU and the indications resulting from the stakeholders' consultation, the Authority sets out, **for the Minimum Access Package**, the following **basic structure of rail services**:



Therefore, the pairs to be considered shall be, at least, the following:

Lev.	Class with greater ability to pay	↔	Class with less ability to pay
1	Maritime services (ferries)	↔	Land services (rail, in the strict sense)
2	Commercial services (freight-passengers)	↔	Technical services (shipping of material, testing, etc.)
3	Passenger transport	↔	Freight transport
4	Open access passenger transport	↔	Passenger transport subject to PSOs
5	International open access passenger transport	↔	National open access passenger transport
6	National open access premium passenger transport	↔	National open access basic passenger transport
7	Long-distance passenger transport subject to PSOs	↔	Regional passenger transport subject to PSOs

As for the pair *national open access premium-basic passenger transport*, the IM shall refer to the use of infrastructure by transport services which present significant differences in terms of level of service provided to customers, with particular reference to frequency and commercial speed.

The structure adopted, broken down into levels (0-1-2-3-4-5-6), may be improved by the Manager by adding additional pairs, explaining the reason for the choice based on adequate inquiries on the market segmentation of rail services, in accordance with the following rules:

- each pair belonging to a specific level shall derive from a single pair component placed at the higher level;
- it is not possible for multiple pairs to derive simultaneously from the same pair component placed at the higher level.

Measure 25 Reclassification of the railway infrastructure

For the purpose of modulating charges, the IM shall submit to the Authority's approval an overall network reclassification so as to highlight the lines having the same characteristics in terms of level of service, based on the criteria set by the Authority.

The rail network should not be understood as the sum of disaggregated independent segments, but as a system, i.e. as a set of lines and facilities characterized by relations and mutual influences, aimed at ensuring mobility of people and goods throughout the country. For this reason, appropriate protection is to be ensured to:

- the unitary concept of the rail network;
- the network solidarity;
- the full integration of HS/HC network and conventional network.

For the purpose of determining charges, the rail network shall therefore provide for the following categories:

1	Metropolitan network , consisting of the main national metropolitan nodes;
2	High-service level network consisting of high-speed/high capacity lines and lines with maximum speed for the higher rank greater than 200 km/h;
3	Medium-service level network , consisting of national corridors (Northern Central and Southern Central), by the main international lines and by other lines of the existing core network;
4	Basic-service level network , consisting of the remaining lines.

Each primary network line can be included in one category only.

Measure 26 Determination of time slots

For the purpose of modulating charges, the IM shall follow up with the definition of **time slots and peak and off-peak periods**, according to the following scheme, based on the analysis of the daily distances of the different market segments:

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Time slot
																									Day
																									Night

Measure 27 Structure of the charge

The charge for each train path shall be determined by the sum of the three **A**, **B** and **C** components according to the following formula:

$$T_{train} = T_{A,train} + T_{B,train} + T_{C,train}$$

The criteria identified by the Authority for the application of each component are described below.

Any increases in the charge resulting from the application of the D component shall be calculated separately.

Measure 28 Criteria for the application of the A component of the charge



The **A component** of the charge shall be so designed that the related total revenues are such to allow the recovery of costs directly attributable to the provision of the services of the minimum access package and access to infrastructure connecting service facilities, as determined on the basis of the criteria established by the Authority.

The A component is divided into three sub-components to be added together by applying two factors (γ and δ) set by the Manager on the basis of reasoned technical and economic choices related to the wear and tear of the infrastructure, so that:

$$T_{A,train} = (T_{base,A1} \cdot W_{A1} + T_{base,A2} \cdot W_{A2} + T_{base,A3} \cdot W_{A3}) \cdot P_{train}$$

with:

$$T_{base,A1} = T_{base,A} \cdot \gamma$$

$$T_{base,A2} = T_{base,A} \cdot \delta$$

$$T_{base,A3} = T_{base,A} \cdot [1 - (\gamma + \delta)]$$

and:

$$T_{base,A} = \frac{C_d}{\sum_{train \text{ per year}} (P_{train})}$$

where:

$T_{A,train}$ **total path charge**, relating to the A component of the charge, in euro;

$T_{base,A1}$ **basic charge in euro/train-km**, related to **A1** sub-component of the charge based on the **class of total train mass**;

$T_{base,A2}$ **basic charge in €/train-km**, related to **A2** sub-component of the charge, based on the **speed class**;

$T_{base,A3}$ **basic charge in €/train-km**, related to **A3** sub-component of the charge, based on the **class of wear and tear of rolling stock contact wire**;

$T_{base,A}$	basic charge in euro/train-km , related to A component of the charge;
W_{A1}	coefficient function of the class of total train mass ;
W_{A2}	coefficient function of linespeed class;
W_{A3}	coefficient function of the class of wear and tear of the contact wire by rolling stock ;
P_{train}	length of train path of each train, in km;
γ	factor (greater than or equal to 0.50) for the weight of A1 sub-component on the total A component of the charge;
δ	factor (between 0 and 0.50) for the weight of A2 sub-component on the total A component of the charge;
$[1 - (\gamma + \delta)]$	factor (between 0 and 0.50) for the weight of A3 sub-component on the total A component of the charge;
C_d	annual cost related to the A component of the charge (cost directly incurred as a result of operating the train service);

The choice of coefficient values shall be made by the IM according to the following technical specifications:

- the coefficient W_{A1} , based on at least three classes, shall be appropriately calculated by the Manager, so that its application to the charge, compared to the total annual mileage for each class, determines the basic charge. Taking care not to obtain, for each class, W_{A1} values of less than 0.50, the Manager shall:
 - choose the W_{max} or W_{min} value relating to the upper or lower class, respectively;
 - assign $W_{average,1}, \dots, W_{average,n}$ values to the coefficients relating to n intermediate classes;
 - determine the value of the missing coefficient W_{min} or W_{max} , by applying the following formula:

$$W_{missing} = \frac{P_{total} - (W_{known} \cdot P_{known\ class} + \sum_1^n (W_{average,n} \cdot P_{intermediate\ class}))}{P_{missing\ class}}$$

where:

$P_{total} = \sum_{train\ per\ year} (P_{train})$	expected total annual train-km on the entire network;
$P_{known\ class}$	expected total annual train-km for the class known;
$P_{intermediate\ class}$	expected total annual train-km for each intermediate class;
$P_{missing\ class}$	expected total annual train-km for the missing class.

The traffic distribution into classes of total train mass, carried out by choosing appropriate threshold values, shall be made by the Manager according to principles of fairness and non-discrimination based on the different impact in terms of direct costs, as well as aimed at reflecting the technical and operating rolling stock characteristics, rewarding, in particular, its efficiency in terms of reduced wear and tear of the infrastructure, separately for passenger and freight services.

- The coefficient W_{A2} , based on at least three classes, shall be appropriately calculated by the Manager, so that its application to the charge, compared to the total annual mileage for each class, leads back to the basic charge. This will be achieved with the same method adopted for coefficient W_{A1} , taking care in this case, too, not to obtain values of less than 0.50.

The calculation of the average speed value, for the purpose of charge structuring, as well as verification of the class of each train, shall be carried out according to the following formula:

$$V_{m,train} = \frac{P_{train}}{(H_{A,train} - H_{P,train}) - \sum (S_{train})}$$

where:

$V_{m,train}$	linespeed for each train, in km/h;
P_{train}	path length of each train, in km;
$H_{A,train} - H_{P,train}$	journey time for each train, representing the difference between departure and arrival time, in hours;

$\Sigma(S_{train})$ sum of the stopping times along the path of each train, in hours;

The traffic distribution into classes of travelling speed, carried out by choosing appropriate threshold values, shall be made by the Manager according to principles of fairness and non-discrimination based on the different impact in terms of direct costs, as well as aimed at reflecting the technical and operational characteristics of rolling stock and allocated path, through groupings based on macro-categories as homogeneous as possible.

- The coefficient W_{A3} , based on at least two classes, one of which for non-electric traction rolling stock (in this case the coefficient equals zero) shall be appropriately calculated by the Manager, so that its application to the charge, compared to the total annual mileage for each class, leads back to the basic charge. This will be achieved with the same method adopted for coefficient W_{A1} .

The distribution of rolling stock operating on the network into classes of contact wire wear and tear shall be carried out by the Manager according to principles of fairness and non-discrimination, as well as aimed at reflecting the technical and operational characteristics of rolling stock operating on the network, through groupings based on macro-categories as homogeneous as possible.

Measure 29 Criteria for the application of the B component of the charge



The **B component** of the charge:

- shall be so designed that the related total revenues allow, when added to the A component and to the relevant sub-components of C component (with the respective algebraic sign), to obtain recovery of the *Efficient Total Cost* $C_{n,t}$, as determined on the basis of the criteria set by the Authority, relating to the provision of services of Minimum Access Package and access to the infrastructure connecting service facilities;
- shall be related to *Direct Costs*, in accordance with the provisions of article 17, paragraph 4 of Legislative Decree No 112/2015;
- shall take as a reference - for the purpose of ensuring the consistent structure of the charging scheme - the general provisions of article 32, paragraph 1 of Directive 2012/34/EU, adopting the "mark-ups" approach outlined therein.

Therefore, the B component will result in a market-based variable charge:

- based on the **average kilometric amount**, defined as from the cost **related to the A component** of the charge;
- adjusted, by applying a **mark-up** α coefficient, based on the amount of the remaining costs for the recovery of the *Efficient Total Cost* as defined above;
- divided into **three sub-components to be added together**, on the basis of **two factors** (ϵ , ϕ), established by the Manager according to justified technical-economic choices.

Thus, the general formula to determine the component includes the following steps:

- 1) determination of the **α coefficient** corresponding to the ratio of the residual costs to obtain the *Efficient total cost* (residual costs, i.e. net of *Direct Costs*) to *Direct Costs*:

$$\alpha = \left(\frac{C_{n,t} - C_d}{C_d} \right)$$

where:

α **mark-up**;

$C_{n,t}$ **Efficient total cost**, calculated as described under Measure 6;

C_d annual **cost** related to the A component of the charge (cost directly incurred as a result of operating the train service);

- 2) determination of the **basic unit charge** $T_{base,B}$, calculated as the product of **mark-up** α and basic unit charge $T_{base,A}$:

$$T_{base,B} = \alpha \cdot T_{base,A}$$

with:

$$T_{base,A} = \frac{C_d}{\sum_{train\ per\ year} (P_{treno})}$$

where:

$T_{base,A}$ **basic charge in €/train-km**, related to the **A** component of the charge;

C_d **annual cost** related to the A Component of the charge (cost directly incurred as a result of operating the train service);

P_{train} **path** length of each train, in km;

- 3) breakdown of the basic unit charge $T_{base,B}$ in three **sub-components to be added together** related, respectively, to:

B1 - ability to pay of market segments;

B2 - network type class;

B3 - service time slot of the service;

according to following formulas:

$$T_{B,train} = T_{basic,B1} \cdot J_B \cdot P_{train} + \sum_{classes\ TR} (T_{basic,B2} \cdot K_{B2,class\ TR} \cdot P_{class\ TR}) + \sum_{slots} (T_{basic,B3} \cdot K_{B3,slot} \cdot P_{slot})$$

with:

$$T_{base,B1} = \varepsilon \cdot T_{base,B1}$$

$$T_{base,B2} = \varphi \cdot T_{base,B1}$$

$$T_{base,B3} = [1 - (\varepsilon + \varphi)] \cdot T_{base,B1}$$

where:

$T_{B,train}$ **total path charge**, related to the B component of the charge, in €;

$T_{base,B1}$ **basic charge in €/train-km**, related to **B1** sub-component of the charge, based on **market segment pairs**;

$T_{base,B2}$ **basic charge in €/train-km**, related to **B2** sub-component of the charge, based on the **network type**;

$T_{base,B3}$ **basic charge in €/train-km**, related to **B3** sub-component of the charge, based on the **time slot**;

J_B coefficient resulting from the running product of single coefficients relating to **pairs**, derived from market segmentation, as shown here below;

$K_{B2,class\ TR}$ coefficient function of the class of **network macro-type**, derived as shown below;

$K_{B3,slot}$ coefficient function of the **time slot**, derived as shown below;

P_{train} **path** length of each train, in km;

$P_{class\ TR}$ length of the **path** part of each train travelled in a specified **class of network type**, in km;

P_{slot} length of the **path** part of each train travelled in a specified **class of time slot**, in km;

ε **factor** (between 0.50 e 1) representing the weight of **B1 sub-component** on the total B component of the charge;

φ **factor** representing the weight of **B2 sub-component** on the total B component of the charge;

$[1 - (\varepsilon + \varphi)]$ **factor** representing the weight of **B3 sub-component** on the total A component of the charge;

At the end of the charge construction, each train will be characterized by a single coefficient J_B , originated from the running product of the individual coefficients calculated on the basis of the specifications described below, according to served market segments, based on the following formula:

$$J_B = \prod_n J_{B,i}$$

Coefficients $J_{B,i=1,...,n}$ are relevant to individual market segments and are applied on the basis of **pairs**, as provided for by article 32(1) of Directive 2012/34/EU.

Within each pair, coefficients are calculated as follows:

- by setting the value of J_{min} , relating, in each pair, to the class with less ability to pay;
- by determining the value of J_{max} coefficient, relating to the class with greater ability to pay, with application of the following formula:

$$J_{max} = \frac{P_{total} - (J_{min} \cdot P_{class min})}{P_{class max}}$$

with:

$$P_{total} = P_{class min} + P_{class max}$$

where:

$P_{class min}$ total annual **train·km** relating to the pair component with less ability to pay;

$P_{class max}$ total annual **train·km** relating to the pair component with greater ability to pay;

In the calculation of the running product it is necessary that, when the train is not present in a market segment of one of the pairs considered, the corresponding value of coefficient J_i be equal to 1.

The pairs to be considered are determined on the basis of the criteria set out in Measure 24.

The values of coefficients J_{min} and J_{max} should reflect the characteristics of the services, based on principles of fairness, non-discrimination and market sustainability, and shall comply with the following limit values:

Pair	Class with greater ability to pay	↔	Class with less ability to pay	minimum J_{min}
$J_{B,1}$	Maritime services (ferries)	↔	Land services (rail, in the strict sense)	0.00
$J_{B,2}$	Commercial services (freight-passengers)	↔	Technical services (shipping of material, testing, etc.)	0.10
$J_{B,3}$	Passenger transport	↔	Freight transport	0.30
$J_{B,4}$	Open access passenger transport	↔	Passenger transport subject to PSOs	0.50
$J_{B,5}$	International open access passenger transport	↔	National open access passenger transport	0.90
$J_{B,6}$	National open access premium passenger transport	↔	National open access basic passenger transport	0.80
$J_{B,7}$	Long-distance passenger transport subject to PSOs	↔	Regional passenger transport subject to PSOs	0.80
...	Any other pairs			...

Coefficient $K_{2,B}$, based on the four **classes** in which the **rail network** will be divided following the reclassification resulting from the proposal made by the IM based on the criteria established by the Authority under Measure 25, shall be properly calculated for each class, so that:

- its application to the mileage of each class, compared to the sum of the total annual mileage (P) complies with the following formula:

$$P = \sum_{classes} (P_{class} \cdot K_{B,1,class})$$

- the choice of each coefficient is aimed at reflecting the characteristics of network use based on criteria of fairness, non-discrimination and sustainability for market operators.

Coefficient K_{B3} , based on the two **classes of time slot** [(i) **day**, (ii) **night**], shall be properly calculated, so that its application to the charge, compared to the total annual mileage for each class, determines the basic charge. This is obtained:

- by assigning K_{min} value (between 0.30 and 1) to the **night** class coefficient;
- by determining the value of K_{max} coefficient by applying the following formula:

$$K_{max} = \frac{P_{total} - (K_{min} \cdot P_{night})}{P_{day}}$$

with:

$$P_{total} = P_{night} + P_{day}$$

where:

P_{night} total annual **train-km** relating to **night** slot;

P_{day} total annual **train-km** relating to **day** slot;

The choice of each coefficient shall be aimed at reflecting the characteristics of network use based on criteria of fairness, non-discrimination and sustainability for market operators.

Measure 30 Criteria for the application of the C component of the charge



Without prejudice to the principle of economic equilibrium laid down in Measure 22, the IM may adopt the **C component** of the charge, to be related to the relevant cost externalities as defined by the regulatory framework; this component shall be divided into four sub-components, separate from each other and all variable (per train-km), cost-based, differentiated in a fair and non-discriminatory manner, respectively connected with:

C1 - scarcity of capacity,

C2 - environmental effects,

C3 - existence of ETCS technology,

C4 – existence of regional charges to improve the railway infrastructure based on specific regulations.

Ultimately:

$$T_{C,train} = T_{C1,train} + T_{C2,train} + T_{C3,train} + T_{C4,train}$$

where:

- $T_{C1,train} \rightarrow$ **SCARCITY OF CAPACITY**

Provided that adequate evidence and reasons for its application is given, the IM may apply such component only to **specified paths** and only to **specified time slots**; in principle, paths characterized by scarcity of capacity shall be related to the infrastructure with limited capacity, as defined in the Network Statement.

The basic charge, to be calculated by the Manager on the basis of the characteristics of the infrastructure and its traffic, shall be modulated in a fair and non-discriminatory manner, with reasonably simple procedures of application and the possible pre-determination by the Railway Undertaking.

Should this component be applied, the Manager is required to publish in the NS a list of the

paths concerned, together with the data relating to available capacity and capacity of use, separately for time slots.

• $T_{C2,train}$ → **ENVIRONMENTAL EFFECTS**

The IM may apply this charge component:

- in the case of **noise effects** only to **specific rolling stock**, using the *bonus/malus* formula and the modalities provided for by Commission Implementing Regulation (EU) 2015/429. Its amount may be null (where *maluses* equal *bonuses*) or negative (where *bonuses* are higher than *maluses*).

• $T_{C3,train}$ → **ETCS INCENTIVES**

Only for rail corridors referred to in Decision 2009/561/EC of the European Commission, the IM shall differentiate charges in order to grant incentives for the purposes of equipping trains with the control-command and signalling system, known as “European Train Control System” (ETCS), pursuant to article 18 (9) of Legislative Decree No 112/2015.

• $T_{C4,train}$ → **CHARGES BORNE BY REGIONS TO IMPROVE INFRASTRUCTURE**

Should the law provide for specific regulations in this respect, the Manager, subject to the economic equilibrium conditions provided for by the Authority, shall reduce the charges for the services performed within the boundaries of a specified Region or Autonomous Province, to take account of any charges borne by the same Regions and Autonomous Provinces, to improve the infrastructure.

The reduction shall be calculated in €/trainkm and applied, in the absence of specific regulatory provisions, to trains running in the relevant territory.

Measure 31 Regulatory criteria for sustainability of market segments

Under article 32, paragraph 1, of Directive 2012/34/EU, the full recovery of the efficient net costs relating to the Minimum Access Package by the IM must be consistent with the railway market sustainability, while ensuring optimal competitiveness within market segments. In addition, the charging scheme must comply with the productivity increases achieved by railway undertakings.

Given the current market conditions and the productivity increases achieved by railway undertakings, for the purpose of the Authority’s checks on the charging scheme pursuant to Decree-Law No 201 of 6 December 2011, article 37 (2) (c), the IM, in the first regulatory period determined on the basis of Measure 58, shall apply the following framework of maximum variability for the Minimum Access Package (in compliance with the general constraint for recovery of only relevant, documented and efficient net costs, in accordance with the criteria referred to in Measure 6 and based on the evidence of audited regulatory accounts):

1	The average kilometre charge for the set of services carried out on the network identified by the new classification as “high-level service” may not be higher than that in force in 2015 for the routes currently designated as high-speed/high-capacity.
2	The average kilometre charge for the set of regional services subject to public service obligations may not be higher than the charge in force in 2015 for the the same set of services.
3	The average kilometre charge for the set of freight services may not be higher than the charge in force in 2015 for the same set of services.

The above criteria represent, for the first regulatory period, the Authority’s guidelines to the Manager as to the sustainability of the market segments.

The Authority reserves the right to carry out the necessary inquiries during the first regulatory period, including the

acquisition of information from railway undertakings in accordance with article 37 (8) of Legislative Decree No 112/2015, aimed at a more accurate definition of the ability to pay of the market segments.

Measure 32 **Monitoring tools**

In order to enable the Authority to check and monitor the application of the new charges, the IM shall prepare, by the date of submission of the charging proposal, an appropriate **simulation model**, whose functional specifications will be subject to the Authority's prior approval (at least 30 days before the deadline for submission of the charging proposal) so as to allow the impact assessment of the application of the new charging scheme. The Authority may turn to third parties to verify the functional specifications of the model.

Measure 33 **Profit sharing**

As from the regulatory period following the first:

- a) where the traffic variation resulting at the end of the previous regulatory period is positive and greater than a pre-determined threshold of + 2%, a percentage equal to 50% of the amount of the margins attributable to the mileage exceeding such threshold shall be recorded as notional entry to deduct the costs allowed for the following regulatory period;
- b) where the traffic variation resulting at the end of the past regulatory period is negative and lower than a pre-determined threshold of -2%, a percentage equal to 50% of the amount of the missed margins attributable to mileage below such threshold may be recorded as notional entry to increase the costs allowed for the following regulatory period.

This margin shall be calculated as a difference between:

- revenues arising from the charge in force in each year applied to the actual traffic recorded
- revenues arising from the charge in force in each year, applied to expected traffic increased/reduced by \pm % (threshold revenues).

Measure 34 **Incentives**

Pursuant to article 18, paragraph 3, of Legislative Decree No 112/2015, the IM may adopt a favourable charging scheme, limited in time, subject to the Authority's prior approval, in the following cases:

- for each railway undertaking, as part of each contract for the use of infrastructure, for the purpose of:
 - promoting the development of new railway services and new connections;
 - using considerably under-utilised lines;
- for entities belonging to market segments which can pay at least the cost directly incurred as a result of operating the train service, plus an acceptable rate of return.

Where the Manager intends to apply one or more incentives provided for by this measure, it shall publish the values of the favourable charging scheme in the Network Statement, as well as the criteria for its application.

TITLE III. ECONOMIC REGULATION – OTHER SERVICES

Chapter V. General principles

Measure 35 Regulatory purpose

With respect to Measure 1 (b), the Authority, in accordance with Legislative Decree No 112/2015, adopts regulatory measures aimed at:

- a) ensuring effective, equal and non-discriminatory access to service facilities to railway undertakings;
- b) introducing for those services which, for technical or economic reasons, are supplied by a single provider or are otherwise under scarcely competitive conditions, mechanisms that encourage cost efficiency by the operators of service facilities;
- c) establishing a transparent framework of reference that ensures operators of service facilities and railway undertakings a better visibility of the economic terms of the supply.

Measure 36 Scope of application

The services referred to in Measure 1 (b) are divided into three types, based on the provisions of Directive 2012/34 EU in conjunction with the relevant Italian legislation transposing the Directive:

- 1) services referred to in paragraph 2 of article 13 of Legislative Decree No 112/2015, herein referred to as **Facilities and services with right to guaranteed access**:
 - i. passenger stations, with respect to the facilities for travel information display and suitable location for ticketing services and other facilities functional to and necessary for railway operation;
 - ii. freight terminals;
 - iii. marshalling yards and train formation facilities, including shunting facilities;
 - iv. areas, facilities and buildings dedicated to parking, shelter and storage of rolling stock and freight;
 - v. maintenance facilities, with the exception of heavy maintenance facilities dedicated to high-speed trains or to other types of rolling stock requiring specific facilities;
 - vi. other technical facilities, including cleaning and washing facilities, as well as train toilet discharge systems;
 - vii. maritime and inland port facilities which are linked to railway activities;
 - viii. relief facilities;
 - ix. refuelling areas or facilities, charges for which are shown on the invoices separately.
- 2) Services referred to in paragraph 9 of article 13 of Legislative Decree No 112/2015, so-called **Additional services**:
 - i. traction current, charges for which shall be shown on the invoices separately from charges for using the electrical supply equipment, without prejudice to the application of Directive 2009/72/EC;
 - ii. pre-heating of passenger trains and water refilling of trains;
 - iii. control of transport of dangerous goods;
 - iv. assistance in running abnormal trains;
 - v. shunting services.
- 3) Services referred to in paragraph 11 of article 13 of Legislative Decree 112/2015, so called **Ancillary services**:
 - i. access to telecommunication networks;
 - ii. provision of supplementary information;
 - iii. technical inspection of rolling stock;
 - iv. ticketing services in passenger stations;
 - v. heavy maintenance services supplied in maintenance facilities dedicated to high-speed trains or to other rolling stock requiring specific facilities.

Measure 37 Level of competition in the provision of services

In order to determine which entities should be subject to *ex-ante* economic regulation, the Authority applies *market power test* procedures, usually used in other regulated sectors, based, *inter alia*, on the following criteria to verify that:

- a) the person has, or will probably acquire, a significant market power (this criterion being based on a competitive analysis of the relevant market, both in product and geographic terms, independence of operators from RUs with market power (also in terms of *de facto* control), transparency of the economic and technical conditions for the provision of services, existence of equally valid alternatives, assessment of any barriers to entry, etc.);
- b) the rules governing competition do not have sufficient deterrent effect to provide protection against the risk of abuse (existence of complaints and their outcomes); and
- c) the benefits of regulation outweigh the negative effects, in economic terms or otherwise, for the service users in the market where the undertaking operates.

Upon initial application, the entity with a significant market power, with reference to the typological classification of the services contained in article 13 of Legislative Decree No 112/2015, shall mean the operator that:

- (i) holds a part of the volumes of production capacity greater than or equal to 50% on a national basis, either directly or through other entities controlled, also *de facto* (pursuant to the provisions of Article 2359 of the Civil Code), by the operator itself or by the controlling economic entity.
- (ii) although not holding a share of volumes of production capacity greater than or equal to 50%, manages facilities or services for which, for at least one third of the years since their activation, there has been a condition of saturation, due to which it was not possible to properly meet, at least once in each of those years, requests for access or supply.

Each operator of the service facility shall therefore consider whether, with respect to each service provided, the a.m. thresholds have been exceeded, giving notice thereof, even in the event of a negative outcome, by 31 January 2016 to the Authority, which will provide this information on its website. If one or both thresholds have been exceeded, the operators of service facilities shall provide any information useful for the Authority's assessment of the criteria under b) and c), by using the appropriate form to be published on the Authority's website by 15 December 2015.

The Authority reserves the right to check the reliability of these assessments.

The operator of the service facility exceeding one or both of the a.m. thresholds may in any case request a deeper analysis for specific facilities or services, providing the necessary information to prove that for such facilities or services the criterion referred to in sub-paragraph a) is not satisfied. The request must be filed on the appropriate form to be published by the Authority on its website by 15 December 2015.

Within 6 weeks of receipt of the above information, the Authority shall determine whether the conditions to start a specific assessment procedure are in place, at the same time providing, if necessary, for the suspension of the additional obligations for the operators of service facilities with significant market power. For this assessment, the Authority shall take into consideration the same requirements used by the national and Community Competition Authority to identify a dominant position, in the light of the relevant case law.

Measure 38 Operators of service facilities

For the purpose of introducing appropriate regulation for the provision of services, the Authority, as of now, also in line with the criteria usually applied for *market power tests*, identifies the following two **types of facility or service** :

- TYPE A:**
- passenger stations, with regard to the structures related to travel information systems and adequate space for ticketing services and other structures necessary and functional to the railway operation; supply of traction current; pre-heating and air-conditioning of passenger trains; access to the telecommunication network whose use is mandatory for railway undertakings; provision of supplementary information to railway companies; technical inspection of rolling stock;
 - facilities referred to in the first sentence of paragraph 5 of article 13 of Legislative Decree No 112/2015;
 - additional facilities and services managed by companies of the *Ferrovie dello Stato Italiane SpA (FSI)*

group or otherwise subject to the control, including *de facto* (pursuant to article 2359 of the Civil Code), of *FSI* or its subsidiaries, falling within the types referred to in Legislative Decree No 112/2015 article 13 (2) (b), (e) and (g) and (9) (e), where one or both thresholds referred to in Measure 37 ((i) and (ii) are exceeded;

- additional facilities and services whose significant market power is assessed on the basis of the *market power test* procedure under Measure 37;

TYPE B: the remaining facilities or services.

Measure 39 Regulatory methods

For facilities and services falling into **Type B** referred to in Measure 38, the Authority sets simplified criteria of economic regulation, in terms of procedures and costs of implementation, essentially based on principles of transparency, predictability and non-discrimination and defines a minimum set of information, including accounting, which the operator of the service facility shall periodically communicate to its users and to the Authority.

For facilities and services falling into **type A** referred to in Measure 38, in addition to the criteria and requirements applied to type B, the Authority sets additional cost-orientation criteria, in line with the provisions of Legislative Decree No 112/2015, article 17, paragraphs 10 and 11, and specific regulatory accounting requirements applicable from the 2014 accounts.

Measure 40 Regulatory period

With regard to the duration of the regulatory period:

- a) for facilities and services falling into **Type A**, reference shall be made to the provisions under Measure 3 and Measure 2 (a), and upon initial application the first regulatory period starts from 1 January 2017;
- b) for other facilities and services, it is allowed to publish a multi-year or annual list, except in the case of exogenous and unpredictable changes in unit costs. At each change in the list, the operator of the service facility shall ensure that the new charging levels do not exceed the cost of providing the service, plus a reasonable profit, in case of services referred to in article 13, paragraph 2 of Legislative Decree no 112/2015, or services referred to in article 13, paragraphs 9 and 11 of Legislative Decree No 112/2015 which are not provided competitively.

In the case of a multi-year regulatory period, the operator of the service facility shall notify the Authority in advance, and publish on its website, the description of the rules determining changes in the charges for the period at issue. The Authority, however, reserves the right to request to the operator the advance review of the charges, where cost developments point to inefficient management or where a non-reasonable profit is generated.

Measure 41 Charge change notice

In order to comply with the principles of transparency and non-discrimination:

- whenever their price list is changed, all operators of service facilities shall publish on their website, at least four months before the deadline for filing the requests for infrastructure capacity allocation, a report including:
 - a statement of costs and revenues of the previous year, including the volumes of services provided;
 - the price list for the following timetable and the expected level of use of the facility;
 - a document outlining the methods used to determine the charges requested in the regulatory period, both with reference to the expected development of costs, inflation and level of use of the facility and to the choices made as to the charging structure.

Upon initial application, all operators of service facilities are required to publish the above-mentioned documents by 12 March 2016.

- in the event of exogenous or unpredictable variation of unit costs, the operator of the service facility may modify the charge even after expiry of the above-mentioned deadline, notifying the change at least three months in advance both to the Authority and on its website. Similarly, if the operator opted for a multiyear regulatory period, the modification of the charges or of the rules for their determination during the same period, in the event of exogenous or unpredictable cost variation, must be notified to the Authority and on the operator's website at least three months in advance.

For the purpose of harmonization with the measures relating to the Minimum Access Package, the IM, in its capacity as operator of the service facility, shall comply with the following procedure for verification of compliance of the charges:

- by 12 March 2016 the IM submits the Authority the new charging scheme for the five-year period from 2017 to 2021, including the methodological document described above and the regulatory accounts referred to in Measure 55;
- by 30 May 2016, the Authority, having carried out the necessary checks, certifies the compliance with the principles and criteria established by the regulatory measures and requires adjustments, if necessary.

Measure 42 Dynamics of charges

This measure applies only to facilities and services falling into Type A of Measure 38.

The dynamics of charges during the relevant regulatory period must be determined, on the one hand, in relation to the cost evolution and, on the other, in relation to the level of use of the facility. As for costs, reference is made to Measure 10, concerning the dynamic of charges during the regulatory period, except as provided therein in respect of the determination of the annual efficiency rate, and with the necessary adjustments based on the type of service being analyzed .

The evolution of the level of use of the facility shall be estimated for the entire regulatory period by the operator of the service facility on the basis of a thorough analysis, which will be included in the report referred to in Measure 41.

Where, on the basis of reasonable criteria, it is expected that there will be a substantial variation in the use of the facility (so as to give rise to provable economies or diseconomies of scale), the operator of the service facility must take such variation into account by applying an appropriate elasticity coefficient to the base-year operating costs, or by distinguishing, within the operating costs, the fixed component from the variable and calculating the variation in unit operating costs upon variation of the expected use.

Chapter VI. Costing (facilities and services under type A of Measure 38)**Measure 43 Cost for the service provision and reasonable profit**

The "cost for the service provision" includes operating costs pertaining to the production of the service and depreciation on assets related to the provision of the service.

In order to ensure the "reasonable profit" in accordance with article 3 (aa) of Legislative Decree No 112/2015, this cost further includes, for the first regulatory period, the amount arising from the application to the Net Invested Capital, as defined under Measure 18, of the rate of return (WACC), as determined under Measure 20.

Measure 44 Time period of reference of costs for pricing purposes

As it is provided with reference to the minimum access package, the cost of providing the services shall be measured ex post with reference to the "Base Year".

Measure 45 Reference values for the calculation of capital costs

For the allocation and eligibility for regulatory purposes of capital costs (depreciation and return on invested capital), the operator of the service facility shall refer to the net book value of long-term assets, according to the domestic (OIC, the Italian accounting standard setter) or international (IAS-IFRS) accounting principles adopted by the operator.

Net Invested Capital is calculated by applying the same methods and parameters as described for the Minimum Access Package, except for the item "Residual value of the infrastructure", which applies only to the IM and is justified with the need for harmonization with the criteria adopted for the Minimum Access Package.

The long-term assets eligible for the calculation of depreciation and return on capital shall be computed net of public contributions, with the following exceptions:

- Government funding in the form of (direct or indirect) increase in capital for companies currently in *FSI* group;
- cases where the date of granting of the public contribution is prior to the date of access of private entities – in return for consideration – to the capital of the operator of the service facility and this access took place before the entry into force of this Decision. In fact, in such cases, the purchase price of the shares by private parties - based on the discounted flow of the expected profits - includes a part of the value of the assets financed by public contributions.

With reference to the assets transferred from Rete Ferroviaria Italiana S.p.A. (RFI) to Trenitalia S.p.A. and FS Logistica S.p.A., pursuant to Prime Minister's Directive of 7 July 2009, the cost of capital related to such assets may be taken into consideration to determine the charges for the services, taking into account, as a deduction, any contributions on plant and equipment to RFI, for the realization of assets or improvements/extraordinary maintenance, which are prior to the transfer. Trenitalia and FS Logistica shall provide, within the methodological document provided for in Measure 41, separate and detailed accounting evidence of such assets, their transfer value as well as net and depreciation values, also highlighting the part of the historical cost and increases in value that may have been deducted to take account of public contributions, including those prior to the transfer. Further, it is provided that separate accounts are prepared annually for the facilities concerned, to be highlighted in an additional column, for each type of service, in tables RC1 and RC2 of Annex B referred to in Measures 54 and 55.

The identification of eligible long-term assets should take account of the actual use of the service facility.

In the case of operators of service facilities carrying out also other activities (eg. in the case of the IM RFI), the identification of the long-term assets associated with the production of the service requires the operator of the service facility to implement separate regulatory accounts not only for operating costs, but also for balance sheet items, so as to allocate the assets to the different services provided and split any common assets according to appropriate allocation criteria.

Measure 46 Depreciation rates and service lives

Operators of service facilities shall refer to the methods and depreciation rates according to the domestic (OIC) or international (IAS-IFRS) accounting principles applied. For reasons of harmonization with the criteria applied for the Minimum Access Package, the RFI operator of the service facility shall apply the same depreciation method provided for therein.

Chapter VII Pricing

Measure 47 Cost orientation

The operator of the service facility will determine the charges on the basis of the relevant costs underlying services other than those included in the Minimum Access Package and for access to the infrastructure connecting service facilities (articles 17 and 18 of Legislative Decree No 112/2015).

For the RFI operator of the service facility, charges shall be determined by applying the same method referred to in Measure 6.

Measure 48 Options for price regulation criteria

Charges may be differentiated by reducing them in relation to the production volume ensured by each railway undertaking, to the extent that such reduction:

- a) takes into account the lower costs incurred;
- b) is applied in a transparent and non-discriminatory manner;
- c) is not based on predatory pricing.

Charges may be related to "sets of services" only if such services are supplied to all users in a unified way (eg. cleaning service of station common areas and public information services).

To prevent discriminatory behaviors, the operator of the service facility, during the review of the charging scheme, is required to provide documentary evidence of the differences in costs or demand which justify different charging. These differences shall be explained in an appropriate annual report including a description of the methods used to estimate their quantitative significance.

TITLE IV. REGULATORY ACCOUNTS

Chapter VIII. Criteria for preparation of regulatory accounting and accounting separation – Minimum Access Package

Measure 49 Regulatory accounting criteria

Regulatory accounts to be produced by the IM are aimed at providing evidence of the methods for the allocation of costs and revenues to all industrial processes related to its activities, with particular reference to the Minimum Access Package and the different categories of services provided to railway undertakings, at providing evidence of the main variables for the assessment of unit costs (primarily, disaggregated traffic volumes according to the supply and demand parameters applied in the new charging scheme), as well at providing evidence of the use of public contributions and incentives, in order to form the basis for the determination of the charges for the use of the railway infrastructure and for the provision of services.

Regulatory accounts shall be prepared yearly, by applying the cost accounting criteria indicated below, as well as those specified in the Measures of above Chapter III, which are fully referred to herein.

- cost base: HCA (Historical Cost Accounting) with reference to the latest approved financial statements ;
- cost standard: FDC (Fully Distributed Costing) and, with respect to Minimum Access Package services, separate indication of the costs directly incurred as a result of operating the train service;
- cost allocation: criteria of causality (Activity Based Costing) and relevance and, with respect to Minimum Access Package services, separate indication of the costs not directly incurred as a result of operating the train service;
- surpluses from other commercial activities: allocation to the Minimum Access Package, separately by type, of the surpluses from other commercial activities, as defined under above Measure 6;
- evidence of the Net Book Value of long-term assets and depreciations expenses for the following costs:
 - incremental expenses contributing to the total expected production (thus including future expansions or developments) and those relating to renewals of existing railway infrastructure (i.e. extraordinary maintenance), both current or expected to be incurred (based on reasoned estimates) over the life of the concession, net of obtained or expected public contributions on plant and equipment ;
 - financial charges expected to be incurred over the life of the concession, relating to funding for investment in the railway infrastructure, for this purpose directly allocated to assets, inclusive of charges relating to any hedging contracts, net of obtained or expected public contributions on plant and equipment .

The IM shall periodically update the regulatory accounting system and, in particular, the criteria and methods for cost allocation according to the best international practice, informing the Authority accordingly.

Measure 50 Statements of accounting separation

The IM shall report yearly the statements of accounting separation specified in “**Annex A, Table 1 - Section A: "Accounting Separation: Income Statements and Balance Sheets"**”.

In particular, with regard to the accounting separation for "Industrial processes", the Authority considers necessary to ensure continuity with the past so as to allow appropriate comparison and highlighting of the dynamics of costs, revenues and public contributions (also in light of the provisions contained in Contractual Agreements for Investment and Services); to this end, it is necessary that the IM submits, upon first implementation and, in particular, only for Table SC1, for a maximum of two years so as to maintain continuity of approach, separate statements for the following business lines:

- *Operation*
- *Infrastructure*
- *Navigation*

- *Safety*
- *Security*
- *Asset management*

Measure 51 Transmission of Documentation to the Authority

The IM shall prepare and provide annually to the Authority, within 30 days from the approval of the Financial Statements, a document on "**Regulatory Accounting Methodology and Statements**" including, also in the light of international best practice, at least the following:

- 1) a description relating to logical model of the regulatory accounting system and system environment /architecture used for regulatory accounting, principles for the allocation of Income Statement and Balance Sheet entries and for the presentation of Financial Statements, operating principles (including methods of valorisation of assets and services, and drivers employed) and criteria for the allocation of public contributions and surpluses from other commercial activities;
- 2) the detailed indication and description of cost accounting methodologies adopted, valorisation criteria, allocation criteria, cost drivers, in relation to at least **each of the items specified in Annex A, Table 1 - Section B: "Regulatory Accounting Methodologies and Information"**, in compliance with the additional specifications indicated therein and in accordance with the statements that may be specified in the Annexes referred to therein;
- 3) the **criteria adopted for accounting separation** and the **Accounting Separation Statements** referred to in Measure 50, accompanied by explanatory notes and descriptions of services included, underlying activities and any changes in methodology or in perimeter compared to the previous year.

Such documents will be kept confidential by the Authority.

The a.m. document "Regulatory Accounting Methodology and Statements" shall be accompanied by a "Report on the verification of the results of the regulatory accounting system adopted by RFI pursuant to the regulatory measures issued by the Transport Regulation Authority", drawn up by an independent auditor and certifying the compliance of the above document with the measures adopted by the Transport Regulation Authority on Regulatory Accounting (so-called "**Certification**"). This report will be kept confidential by the Authority.

Measure 52 Publication of Regulatory Accounting information

Pursuant to article 14.3 (b) of Legislative Decree No 112/2015 the IM shall include in the Network Statement (NS) a section on the charging principles, containing appropriate detailed information on the charging scheme and on charges so as to allow RUs to easily determine the cost for the use of lines and service facilities. It shall specify methodology, rules and parameters used with respect to costs and charges.

The above-mentioned NS contains additional information on charging changes already decided or expected in the next five years, where available (article 14.3 (b) of Legislative Decree No 112/2015).

In order to ensure an adequate level of transparency, the IM shall make available, upon request of the interested parties, a summary of the Regulatory Accounting Methodology (publishable version) and a summary of the Accounting separation criteria adopted (publishable version); this summary shall be submitted to the Authority in advance.

Chapter IX. Criteria for preparation of regulatory accounting and accounting separation – Other services**Measure 53 Requirements for service facilities under Type A: Cost Accounting criteria**

The regulatory accounting to be produced by the operator of the service facility is aimed at providing evidence of the methods for allocating costs and revenues relating to the activities for the production of each of the services referred to in Legislative Decree No 112/2015, article 13 paragraphs 2, 9 and 11 provided by the operator.

Such regulatory accounting shall be prepared yearly, by applying the cost accounting criteria indicated in Chapter VI, which are fully referred to herein.

As for each service, the aforementioned regulatory accounts, upon initial application, may also be drafted by aggregating categories of facilities managed by the operator, as provided in Article 13, paragraph 5, of Legislative Decree No 112/2015

Measure 54 Requirements for service facility operators under Type A: Statements of accounting separation

The operator of the service facility shall report yearly the statements of accounting separation specified in **Annex B - Table 1 - Section A: "Accounting Separation for Operators of service facilities: Profit and Loss Account and Balance Sheets"**, which shall include references to the regulations relating to each statement.

Measure 55 Requirements for service facility operators under Type A: Transmission of documentation to the Authority

With respect to the provisions under above-mentioned Measure 53 and 54, the operator of the service facility shall prepare and provide annually to the Authority, within 60 days from the approval of the Financial Statements, a document on "**Regulatory Accounting Methodology and Statements**" including at least the following:

- a) a description relating to logical model of the regulatory accounting system and system environment/architecture used for regulatory accounting, principles for the allocation of Income Statement and Balance Sheet entries and for the presentation of Financial Statements, operating principles (including methods of valorisation of assets and services, and drivers employed) and criteria for the allocation of public contributions, if any;
- b) the criteria adopted for accounting separation and the Accounting Separation Statements referred to in Measure 54, accompanied by explanatory notes and description of the services included, underlying activities and any changes in methodology or in perimeter compared to the previous year;
- c) the detailed indication of the cost accounting methodologies adopted, valorisation criteria, allocation criteria, cost drivers, in relation to at least **each of the items specified in Annex B - Table 1 - Section B: "Regulatory Accounting Methodologies and Information"**, and in accordance with the statements that may be specified in the Annexes referred to therein.

Such documents will be kept confidential by the Authority.

With respect to 2014 regulatory accounts, the deadline for submission of the documentation to the Authority is 12 March 2016, as provided for in Measure 58. Upon initial application, the Authority will assess whether the use of parametric/assessment methods for the cost allocation to services, may be accepted in place of the accurate use of analytical accounting systems.

Measure 56 Requirements for service facility operators referred to in Type A: Other requirements

The document "Regulatory Accounting Methodology and Statements" shall be accompanied by a "Report on the

verification of the results of the regulatory accounting system adopted by the operator of the service facility pursuant to the regulatory measures issued by the Transport Regulation Authority", drawn up by an independent auditor and certifying the compliance of the above document with the measures adopted by the Transport Regulation Authority on Regulatory Accounting (so-called "**Certification**"). This report will be kept confidential by the Authority.

Measure 57 **Requirements for service facility operators referred to in Type A and B**

In order to ensure an adequate level of transparency on the terms of the service provision, all service facilities operators shall publish on their website a report including:

- a) a statement of base-year costs and revenues and of the volume of services provided;
- b) the price list for the following timetable period and the expected level of use of the service facility;
- c) a methodological document outlining the procedures used to determine the charges required in the regulatory period, with regard both to the expected development of costs, inflation and level of use of the facility and to the choices made for the charging structure.

TITLE V. ENTRY INTO FORCE

Chapter X. Transitional period

Measure 58 Provisions for the entry into force of the new charging scheme

With a view to the full implementation of the principles and criteria set out for the charging scheme, the Authority provides for the following transitional procedures for the economic regulation of the first regulatory period from 2016 to 2021, effective as of 1 January 2016:

- 1) **First stage** (transitional): from **1 January 2016** to **9 June 2017**;
- 2) **Second stage** (full operational): from **10 June 2017** to **9 December 2021**;

These stages are characterized as follows:

- a) the first regulatory period is one year longer than that provided when the system is fully in place; therefore, it covers a six-year term period ($T_1 - T_6$) including the years from **2016** to **2021**;
- b) **2014** is considered as the **base year** (T_{-1}) and **2015** as the **bridge year** (T_0);
- c) the deadline for **presentation to the Authority** of the IM's new **charging scheme 2016-2021**, accompanied by all documents provided for in Measure 4, is **12 March 2016**;
- d) thus, the deadline for **verification of compliance by the Authority** is **30 May 2016**;
- e) the new charging scheme shall be included in a **special NS edition**, to be made public, according to the usual procedures, by **11 June 2016**;
- f) the new charging scheme for the Minimum Access Package shall enter fully into force on **1 January 2016** and shall become fully operational on **1 January 2017**, subject to the transitional stage described here below;
- g) for the first stage of the regulatory period (**1 January 2016 – 9 June 2017**) the IM shall provide, as a transitional measure, for the application of the **charges in force in 2015**, adjusted by the planned inflation rate for the year 2016, as resulting from the 2015 Economic and Financial Planning Document (DEF), presented by the Government to the Parliament in April 2015.

Considering that the charging scheme, when fully implemented (2017 and following years) is based on the regulatory accounts at base year 2014 (T_{-1}), with extrapolation of the costs according to the criteria provided for by the Authority and submission of the charge for verification by March 2016, the Authority identifies a separate value PF_{2016} , to be considered as a **notional entry** which shall be valorised by the Manager within the charging structure, to be subject to verification in accordance with the set deadlines.

The amount PF_{2016} will comprise any difference between:

- i. the amount of charges obtained by applying the **transitional system** provided for the first stage of the regulatory period (**1 January 2016 - 9 June 2017**), taking as the basis of calculation the traffic forecasts developed for determining charges for the same period;
- ii. the amount of charges for the same period (**1 January 2016 - 9 June 2017**) and the same traffic, **calculated according to the criteria established by the Authority for the full operational system**, based on 2014 Regulatory Accounts and their temporal dynamics.

For the purpose of determining the charges, the value of the notional entry shall be used to determine an additional charge component (with plus or minus sign), to be assigned to the expected traffic for the remaining part of the regulatory period, as follows:

$$T_{supp,base} = \frac{PF_{2016}}{P_{tot,2017-2021}}$$

where:

$T_{supp,base}$ **basic rate in €/train-km**, connected with to the recovery (for the IM or RUs) of higher/lower revenues related to the application of the transitional charging scheme for the period from **1 January 2016 to 9 June 2017**

$P_{tot,2017-2021}$ **total mileage of rail services on the network**, in **train·km**, resulting from the Manager's forecasts upon determination of charges and extended to the period **from 10 June 2016 to 31 December 2021**;

The rate $T_{supp,base}$ will be later modulated for market segments according to the same procedures applied by the Manager for the B component of the charge.

Measure 59 **Application of the *Direct Costs* mechanism by the IM**

With respect to the determination of the charge relating to the Minimum Access Package as determined with reference to *Direct Costs*, as provided for in Measure 7, paragraph 4 of article 17 of Legislative Decree No 112/2015 specifies that "*The Infrastructure Manager may in any case decide to apply gradually these procedures over a period not exceeding four years after the entry into force of said implementing regulation.*"[editor's note: Implementing Regulation (EU) 2015/909].

In this case, the following transitional measures shall apply:

- a) upon submission of the proposed charges, referred to in Measure 4, for the first regulatory period, the IM shall inform the Authority about the terms and any phased-in application of the new method for calculating *Direct Costs*;
- b) for the period between the starting date of the regulatory period (1 January 2016) and the deadline indicated by the IM referred to in (a), the *Direct Costs* component shall be calculated, on a presumptive basis, starting from the *Efficient Total Costs* and applying thereto the following formula:

$$C_d = \mu \cdot C_{nt}$$

where:

C_d *Direct Costs*: costs directly incurred as a result of operating the train service;

C_{nt} *Efficient total costs* related to the Minimum Access Package services;

μ estimate coefficient of direct costs on total efficient net cost, adopted by the IM on the basis of analytical information relating to its activities, while complying with the principles of relevance and reasonableness; the analysis and reasons for the choice of μ parameter shall be submitted to the Authority as part of the verification of compliance referred to in Measure 4.

- c) the implementation, including phased-in implementation, of the new method of calculation of *Direct Costs*, adopted by the IM and notified as provided for in (a), shall be subject to an extraordinary charging review, according to procedures and deadlines to be agreed with the Authority.

ANNEX A - REGULATORY ACCOUNTS OF THE INFRASTRUCTURE MANAGER

Table 1

Statements of accounting separation and information to be reported yearly to the Authority

IM's obligations	General and specific regulatory references	Areas of application	
Section A <i>"Accounting separation: Income statements and Balance sheets" (°)</i>	As a general rule: Decree Law No 201/2011, article 37 (3)(b)	Industrial processes within the IM's remit	Minimum Access Package (MAP)
Profit and loss account in its income statement and balance sheet components according to the structure referred to in Table SC1	art. 16(2) of Legislative Decree No 112/2015 ; art. 37(13) and Annex 4 (1.a) of Legislative Decree No 112/2015	<input checked="" type="checkbox"/> For each industrial process within the IM's remit	
Profit and loss account in its income statement and balance sheet components according to the structure referred to in Table SC2	art. 16(2) of Legislative Decree No 112/2015 ; art. 37(13) and Annex 4 (1.a) of Legislative Decree No 112/2015		<input checked="" type="checkbox"/>
Reconciliation statement between table SC1 and financial statements	art. 16(2) of Legislative Decree No 112/2015 ; art. 37(13) and Annex 4 (1.a) of Legislative Decree No 112/2015	<input checked="" type="checkbox"/>	
Cash flow statement for the "system" referred to in article 17 (6) of Legislative Decree No 112/2015 (to take account of the environmental effects), highlighting: a) total amount of bonuses for retrofitted wagons, silent trains and very quiet wagons and locomotives; b) total amount of malus charged	articles 8, 9 and 7.3 of Regulation (EU) 2015/429 of 13 March 2015; art. 37(13) and Annex 4 (2.b) of Legislative Decree No 112/2015		<input checked="" type="checkbox"/>
Section B. "Regulatory Accounting Methodologies and Information" (^)	As a general rule: Decree Law No 201/2011, article 37, paragraph 3 (b); Legislative Decree No 112/2015, Annex IV (3 f)	Industrial processes within the IM's remit	Minimum Access Package (MAP)
Indication of the different cost categories, in particular providing sufficient information on the costs so as to monitor access charges and use of infrastructure	art. 37(13) and Annex 4 (2.a) of Legislative Decree No 112/2015	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Methodology used to allocate total costs to the different activities and cost allocation mechanisms related to all industrial processes, with particular reference to the minimum access package	art. 37(13) and Annex 4 (1.d) of Legislative Decree No 112/2015 ; art. 16(2) of Legislative Decree No 112/2015	<input checked="" type="checkbox"/> For each industrial process within the IM's remit	<input checked="" type="checkbox"/>
Methodology used to allocate revenues to each process and service, with particular reference to the minimum access package	art. 37(13) and Annex 4 (1.c) of Legislative Decree No 112/2015 ; art. 16(2) of Legislative Decree No 112/2015	<input checked="" type="checkbox"/> For each industrial process within the IM's remit	<input checked="" type="checkbox"/>

IM's obligations	General and specific regulatory references	Areas of application	
Methodology used to determine the values of the costs directly attributable to the minimum access package and quantitative assessment according to the structure referred to in Table CD1	art. 17(4) of Legislative Decree No 112/2015; Commission Implementing Regulation (EU) 2015/909 on the modalities for the calculation of direct costs; art.37(13) and Annex 4 (2.a) of Legislative Decree 112/2015		<input checked="" type="checkbox"/>
Methodology for the identification of surpluses from other commercial activities	art. 16(1) of Legislative Decree 112/2015; art. 37(13) of Legislative Decree No 112/2015	<input checked="" type="checkbox"/> For each industrial process within the IM's remit	
Methodology used to allocate a part of the surpluses from other commercial activities to the revenues of the Minimum Access Package	art. 16(1) of Legislative Decree No 112/2015; art. 37(13) of Legislative Decree No 112/2015		<input checked="" type="checkbox"/>
Methodology used to determine the value of mark-ups for the full recovery of total costs for the Minimum Access Package	art. 18(2) and 18(3) of Legislative Decree No 112/2015		<input checked="" type="checkbox"/>
Methodology used to determine the values of long-term assets and depreciations relating to "Long-term costs" for specific investment projects pursuant to art. 18 (8) of Legislative Decree No 112/2015 and indication of the relevant values	art. 18(8) of Legislative Decree No 112/2015; art. 37(13) of Legislative Decree No 112/2015		<input checked="" type="checkbox"/>
Indication of cost and profit categories making it possible to determine whether cross-subsidies between different activities occurred	art. 37(13) and Annex 4 (1.c) of Legislative Decree No 112/2015	<input checked="" type="checkbox"/> For each industrial process within the IM's remit	<input checked="" type="checkbox"/>
Detailed information on individual sources and uses of public funds and other forms of compensation in a transparent and detailed manner, including a detailed review of the businesses' cash flows in order to determine in what way these public funds and other forms of compensation have been used, so as to allow to check whether the prohibition as to the transfer of public funds from one area of activity to another was complied with.	art. 37(13) and Annex 4 (1.b) of Legislative Decree No 112/2015 art. 6 (4) of Recast Directive	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Detailed data on intercompany payments between the IM and the companies which are part of the same group structure as the IM	art. 37(13) and Annex 4 (1.e) of Legislative Decree No 112/2015		<input checked="" type="checkbox"/>
Sufficient information to allow monitoring of the charges paid for the service, with disaggregated data on traffic volumes and on revenues paid by customers, with an independent certification on the system to calculate actual traffic volumes in terms of data accuracy and consistency with accounting data	art. 37(13) and Annex 4 (2.b) of Legislative Decree No 112/2015		<input checked="" type="checkbox"/>
Information on costs and revenues of the Minimum Access Package to identify potentially anti-competitive pricing (cross-subsidies, predatory pricing and excessive pricing)	Art. 37(13) and Annex 4 (2.c) of Legislative Decree 112/2015		<input checked="" type="checkbox"/>
Statements on a) financial performance; b) summary expenditure; c) maintenance expenditure; d) operating expenditure;	art. 37(13) and Annex 4 (3) of Legislative Decree No 112/2015	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
(*) Accounting Separation Statements to be included in the Document "Regulatory Accounting Methodology and Statements"			
(^) Issues to be addressed as part of the Document "Regulatory Accounting Methodology and Statements"			

Table SC1

Profit and Loss Account in its income statement and balance sheet components for each industrial process within the IM's remit (*)

A) Income Statement

	Operation		Infrastructure		Navigation		Safety		Security		Asset management		TOTAL	
	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet
Charge														
Other revenues from services														
Revenues from Programme or Service Contract														
Non-refundable incomes from public and private sources														
Other revenues														
Total operating revenues														
Cost of staff														
Raw materials, subsidiary and consumables materials, goods														
Costs for services														
Costs for use of third party assets														
Other operating costs														
Costs for capitalized internal works														
Total operating costs														
Gross operating profit (EBITDA)														
Depreciations														
Devaluations, decreases (increases) in value														
Provisions														
Income before cost of capital employed														
Cost of capital employed														
Net income after cost of capital employed														
WACC used for assessment of cost of capital employed														

B) Balance Sheet

	Operation		Infrastructure		Navigation		Safety		Security		Asset management		TOTAL	
	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet
ASSETS														
Property, plant and equipment														
Investment property														
Intangible assets														
Assets for prepaid taxes														
Investment in other companies														
Non-current financial assets (including derivatives)														
Non-current trade receivables														
Other non-current assets														
Total non-current assets														
Inventories														
Construction contracts														
Current trade receivables														
Current financial assets (including derivatives)														
Cash and cash equivalents														
Tax credits														
Other current assets														
Total current assets														
Assets held for sale and disposal groups														
TOTAL ASSETS														
LIABILITIES														
Medium- and long-term borrowings														
Severance payments and other benefits for employees														
Provisions for risks and charges														
Liabilities for deferred taxes														
Non current financial liabilities (including derivatives)														
Non current trade payables														
Other non current liabilities														
Total non current liabilities														
Short-term borrowings and current portion of medium/long-term borrowings														
Current trade payables														
Debt for income taxes														
Current financial liabilities (including derivatives)														
Other current liabilities														
Total current liabilities														
Liabilities held for sale and disposal groups														
TOTAL LIABILITIES														
TOTAL CAPITAL EMPLOYED														

(*) The methodological documentation relating to this table shall include list and description of the processes, list and description of the services included in each process, list and description of the activities (or macro-activities) related to each process, as well as any changes in methodology or in perimeter compared to the previous year.

Table SC2

Profit and Loss Account in its income statement and balance sheet components for the Minimum Access Package (MAP)

A) Income Statement

	Circulation		Infrastructure		Navigation		Total MAP	
	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet
Charge								
Other revenues from services								
Revenues from Programme or Service Contract								
Revenues from non-refundable contributions from public and private sources								
Other revenues								
Surpluses from other commercial activities								
Total operating revenues								
Cost of staff								
Raw materials, subsidiary and consumable materials, goods								
Costs for services								
Costs for use of third-party assets								
Other operating costs								
Costs for capitalized internal works								
Total operating costs								
covered by Programme or Service Contract								
covered by non-refundable contributions from other public and private sources								
Gross operating profit (EBITDA)								
Depreciations								
Devaluations, decreases (increases) in value								
Provisions								
Income before cost of capital employed								
Cost of capital employed								
Net income after cost of capital employed								
WACC used for assessment of cost of capital employed								

B) Balance Sheet

	Circulation		Infrastructure		Navigation		Total MAP	
	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet
ASSETS								
Property, plant and equipment (*)								
Investment property								
Intangible assets								
Assets for prepaid taxes								
Investment in other companies								
Non-current financial assets (including derivatives)								
Non-current trade receivables								
Other non-current assets								
Total non-current assets								
Inventories								
Construction contracts								
Current trade receivables								
Current financial assets (including derivatives)								
Cash and cash equivalents								
Tax credits								
Other current assets								
Total current assets								
Assets held for sale and disposal groups								
TOTAL ASSETS								
LIABILITIES								
Medium- and long-term borrowings								
Severance payments and other benefits for employees								
Provisions for risks and charges								
Liabilities for deferred taxes								
Non current financial liabilities (including derivatives)								
Non current trade payables								
Other non current liabilities								
Total non current liabilities								
Short-term borrowings and current portion of medium/long-term borrowings								
Current trade payables								
Debt for income taxes								
Current financial liabilities (including derivatives)								
Other current liabilities								
Total current liabilities								
Liabilities held for sale and disposal groups								
TOTAL LIABILITIES								
TOTAL CAPITAL EMPLOYED								

(*) net of Government contributions on plant and equipment, in accordance with the IAS/IFRS international accounting standards adopted.

N.B. The methodological documentation relating to this table shall include list and description of the processes, list and description of the services included in each process, list and description of the activities (or macro-activities) related to each process, as well as any changes in methodology or in perimeter compared to the previous year.

Table CD1
Quantitative assessment of the costs directly attributable to the Minimum Access Package
A) Income Statement

	Circulation			Total MAP	
	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet
<i>Costs of staff for maintenance that is directly related to the operation of the train service</i>								
<i>Costs of staff needed for keeping open a particular stretch of line if an applicant requests to run a specific train service scheduled outside the regular opening hours of this line</i>								
<i>Costs of staff needed for preparing the allocation of train paths and the timetable to the extent that they are directly incurred as a result of operating the train service</i>								
<i>Costs of staff for maintaining the overhead wire or the electrified third rail or both and the supporting overhead line equipment directly incurred as a result of operating the train service</i>								
<i>Costs of staff for other services that are directly related to the operation of the train service</i>								
<i>Raw materials, subsidiary and consumable materials, goods for renewing the overhead wire or the electrified third rail or both and the supporting overhead line equipment directly incurred as a result of operating the train service</i>								
<i>Raw materials, consumables and freight for requirements directly related to the infrastructure and the operation of the train service</i>								
<i>Costs for maintenance that is directly related to the operation of the train service</i>								
<i>Costs of point infrastructure, including switches and crossings, that is exposed to wear and tear by the train service</i>								
<i>Depreciation which is determined on the basis of real wear and tear of infrastructure due to the train service operation</i>								
<i>Other costs, not mentioned above, directly incurred as a result of operating the train service</i>								

ANNEX B - REGULATORY ACCOUNTS OF THE OPERATOR OF THE SERVICE FACILITY

Table 1

Statements of accounting separation and information to be reported yearly to the Authority

Obligations of the operator of the service facility	General and specific regulatory references	Area of application
Section A. "Accounting separation: Income statements and balance sheets"	<i>As a general rule: Decree Law No 201/2011, article 37 (3) (b)</i>	<i>Services provided by the operator of the service facility</i>
Profit and loss account in its income statement and balance sheet components according to the structure referred to in Table RC1	art. 16(2) of Legislative Decree No 112/2015; art. 37(13) and Annex 4 (1.a) of Legislative Decree No 112/2015	<input checked="" type="checkbox"/> For each of the services provided
Reconciliation statement with Financial Statements	art. 16.2 of Legislative Decree No 112/2015 ; art. 37.13 and Annex 4 (1.a) of Legislative Decree No 112/2015	<input checked="" type="checkbox"/>
Section B. "Regulatory Accounting Methodologies and information"	<i>As a general rule: Decree Law No 201/2011, article 37 (3) (b); Legislative Decree No 112/2015, Annex IV (3) (f)</i>	<i>Services provided by the operator of the service facility</i>
Methodological document outlining the methods used to determine the charges requested in the regulatory period, both with regard to the expected development of costs, inflation and level of use of the facility and to the choices made for the charging structure	art. 37 (13) and Annex 4 (2.b) of Legislative Decree No 112/2015	<input checked="" type="checkbox"/>
Indication of the different cost categories, in particular providing sufficient information on costs so as to allow the monitoring of services charges	art. 37 (13) and Annex 4 (2.a) of Legislative Decree No 112/2015	<input checked="" type="checkbox"/>
Methodology used to allocate total costs to the different activities and cost allocation mechanisms related to all industrial processes, with particular reference to the minimum access package	art. 37.13 and Annex 4 (1.d) of Legislative Decree No 112/2015	<input checked="" type="checkbox"/> For each of the services provided by the facility operator
Indication of cost and profit categories making it possible to determine whether cross-subsidies between different activities occurred	art. 37 (13) and Annex 4 (1.c) of Legislative Decree No 112/2015	<input checked="" type="checkbox"/> For each of the services provided by the facility operator
Detailed information on individual sources and use of public funds and other forms of compensation in a transparent and detailed manner, including a detailed review of the businesses' cash flows in order to determine in what way these public funds and other forms of compensation have been used, so as to allow to check whether the prohibition as to the transfer of public funds from one area of activity to another was complied with	art. 37 (13) and Annex 4 (1.b) of Legislative Decree No 112/2015 art. 6 (4) of Recast Directive	<input checked="" type="checkbox"/>
Detailed data on intercompany payments	art. 37 (13) and Annex 4 (1.e) of Legislative Decree No 112/2015	

Statement RC1

Income Statement Account in its components of Profit and Loss and Balance Sheet for each service within the remit of the operator of the service facility

A) Income Statement

	Service 1		Service 2		Service ...		Service N	
	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet
Charge								
Other revenues from services								
Revenues from Programme or Service Contract								
Revenues from non-refundable contributions from other public and private sources								
Other revenues								
Surpluses from other commercial activities								
Total operating revenues								
Cost of staff								
Raw materials, subsidiary and consumable materials, goods								
Costs for services								
Costs for use or third party assets								
Other operating costs								
Costs for capitalized internal works								
Total operating costs								
covered by Programme or Service Contract								
covered by non-refundable revenues from other public and private sources								
Gross operating profit (EBITDA)								
Depreciations								
Devaluations, decreases (increases) in value								
Provisions								
Income before cost of capital employed								
Cost of capital employed								
Net income after cost of capital employed								
WACC used for assessment of cost of capital employed								

B) Balance Sheet

	Service 1		Service 2		Service ...		Service N	
	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet	Last balance sheet	Previous balance sheet
ASSETS								
Property, plant and equipment								
Investment property								
Intangible assets								
Assets for prepaid taxes								
Investment in other companies								
Non-current financial assets (including derivatives)								
Non-current trade receivables								
Other non-current assets								
Total non-current assets								
Inventories								
Construction contracts								
Current trade receivables								
Current financial assets (including derivatives)								
Cash and cash equivalents								
Tax credits								
Other current assets								
Total current assets								
Assets held for sale and disposal groups								
TOTAL ASSETS								
LIABILITIES								
Medium- and long-term borrowings								
Severance payments and other benefits for employees								
Provisions for risks and charges								
Liabilities for deferred taxes								
Non current financial liabilities (including derivatives)								
Non current trade payables								
Other non current liabilities								
Total non current liabilities								
Short-term borrowings and current portion of medium/long-term borrowings								
Current trade payables								
Debt for income taxes								
Current financial liabilities (including derivatives)								
Other current liabilities								
Total current liabilities								
Liabilities held for sale and disposal groups								
TOTAL LIABILITIES								
TOTAL CAPITAL EMPLOYED								